RESULT
Računalniški sistemi d.o.o.

BIView

BIVIEW REFERENCE GUIDE

April 2014

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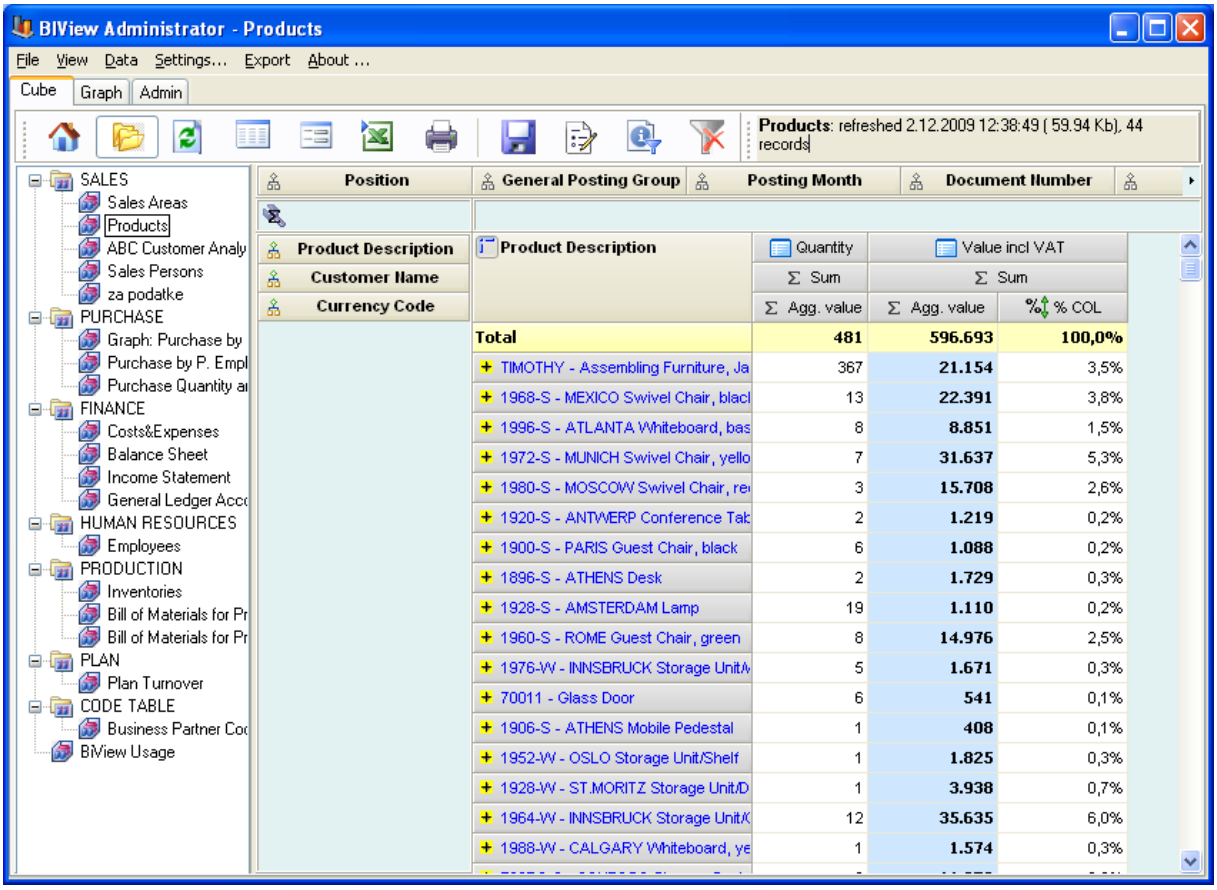


Figure 1: BIView entering screen

1 File

This menu has the following functions:

1.1 Open

Open file in .bvp or . bvc form. File type .bvc contains view connection (from database or from file and view). This possibility enables easier saving of single views on the desktop.

1.2 Save

Save command file .bvc. Select file name and directory.

All information needed to reopen the same view is saved in the command file (repository, view and view settings). All information is saved into local disc in “My documents\BIView\Cubes” and “My documents\BIView\Pivots”.

Example:

Bvc content: view with ID 512 and appearance: C:\Documents and Settings\Johan\My Documents\BIView\Pivots\512_scc2007.bvp, which is automatically created by BIView.

```
<Configuration>
  <Cube OI="512" MAXIMIZE="0">
```

```
  <VF>
    <![CDATA[C:\Documents and Settings\Johan\My Documents\BiView\Pivots\512_scc2007.bvp]]>
  </VF>
 </Cube>
</Configuration>
```

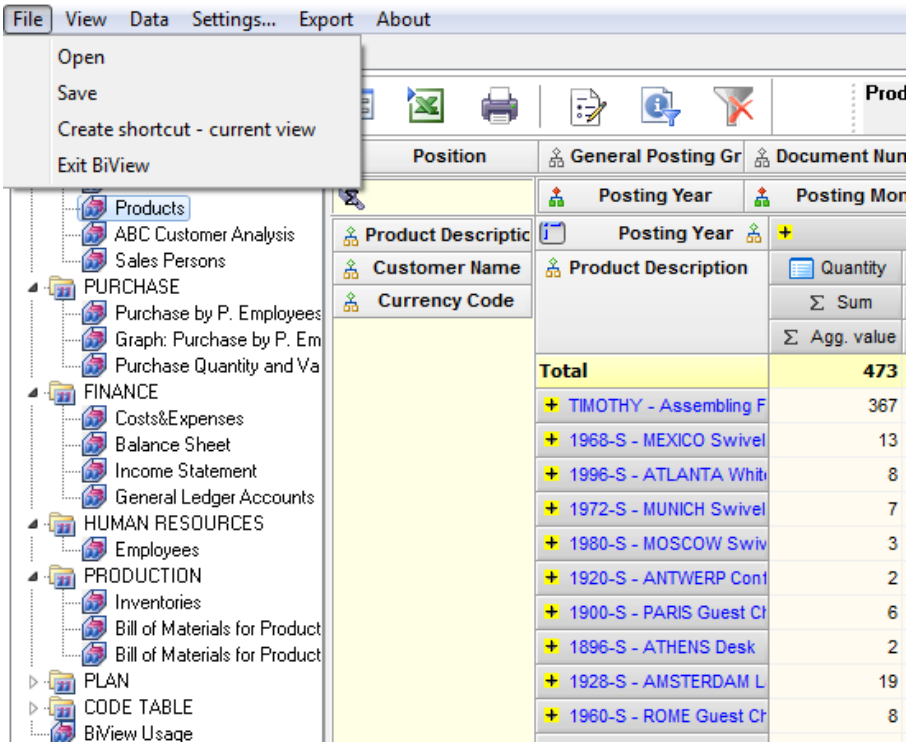


Figure 2 : File and save menu

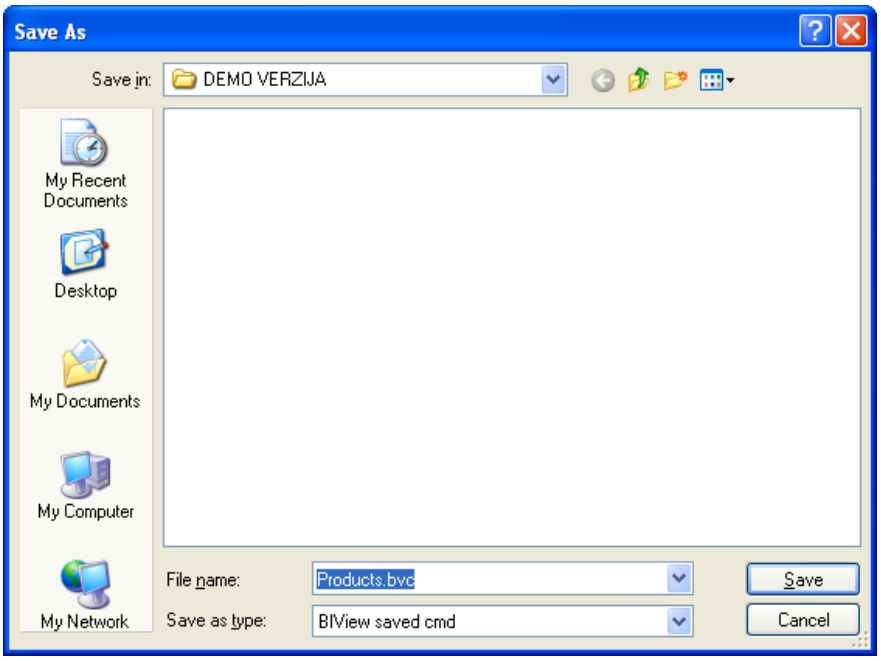


Figure 3: Choosing file name and saving position for .bvc file

1.3 Create shortcut – current view

This function enables you to save current view design as a shortcut on your desktop. This means that the basic view with all current changes that you have made on a view is saved. The file type is also .bvc.

You can create shortcut through the menu or with right mouse button click on view list.

1.4 Exit BIView

Exit from BIView.

2 View

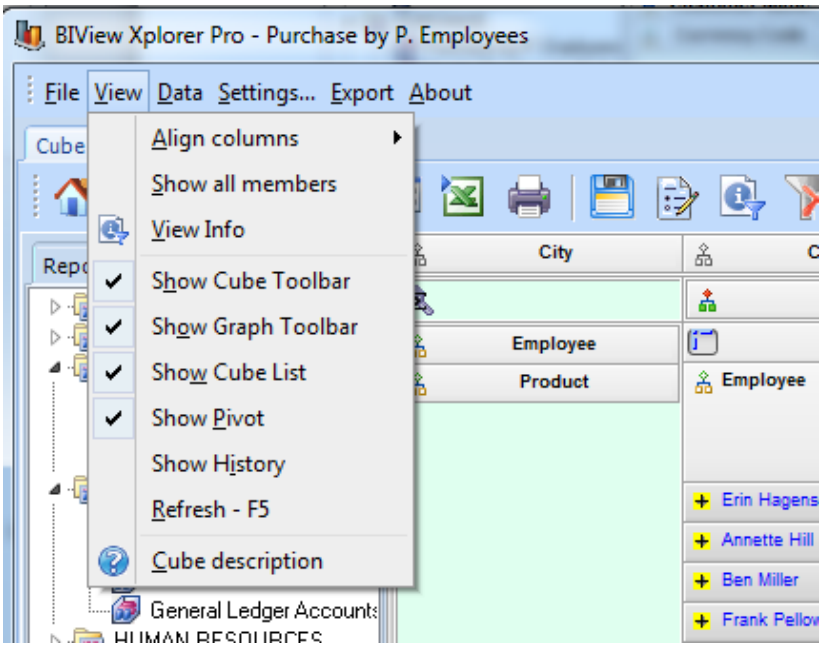


Figure 4: View menu

2.1 Align columns

Shows options for aligning columns.

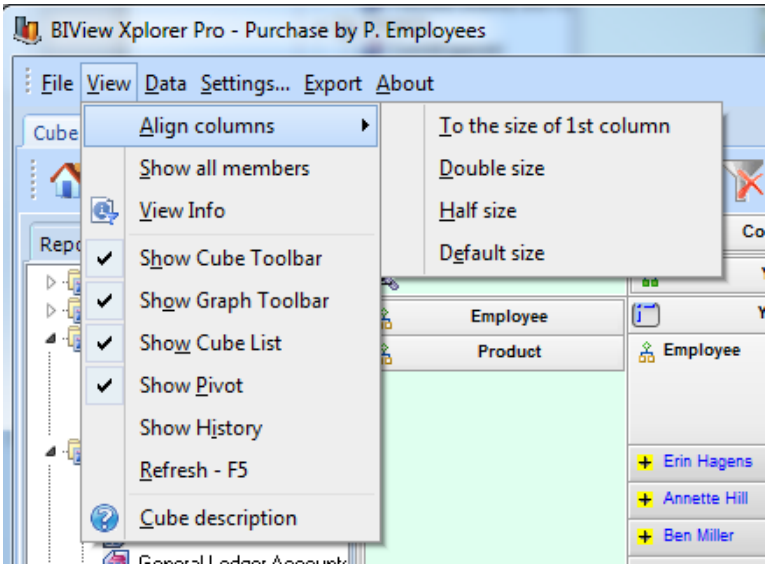


Figure 5: Align columns menu

2.2 Show all Members

It eliminates all filters on all dimensions in a selected cube.

2.3 View Info

It shows cube ID, date and hour of data refreshment, data volume, cube dimensions, number of members in particular dimension, and info about dimensions' filtering.

2.4 Show Cube Toolbar

It shows/hides cube toolbar.

2.5 Show Graph Toolbar

It shows/hides graph toolbar.

2.6 Show Cube List

It shows/hides cube list.

2.7 Show History

Shows view history.

2.9 Refresh – F5

Returns you to homepage.

2.10 Cube description

Shows a window with the description of the view. If there is no file with the description of the view, it displays the description that was set in BIView. If there is no description set in BIView as well, then this function does not displaying anything.

3 Data

3.1 Save data and view to file

It enables saving of data and view to file with *.bvd extension.

3.2 Load data and view from file

It enables loading of data and view from file with *.bvd extension.

3.3 Save view to file

It enables saving of the view without data to file with *.bvp extension.

3.4 Load view from file

It enables loading of view without data from file with *.bvp extension.

3.5 Create shortcut

You can easily and quickly save views to your desktop by clicking the right button on the mouse on a view list. The file with .bvc extension is created. There are two options: create shortcut or create shortcut – current view.

Create shortcut function saves as the shortcut to the view as it is. The create shortcut - current view function saves all the changes made on the selected view.

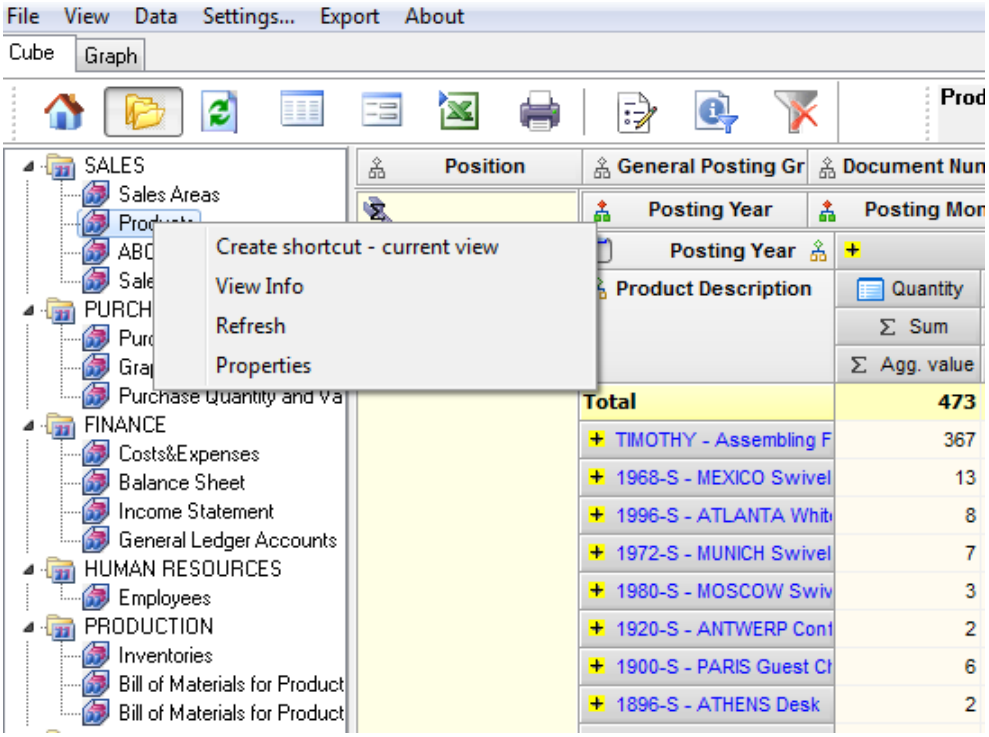


Figure 6: Create shortcut – right mouse button click on view list

4 Settings

Specific visual settings for particular BIView user are defined in Settings menu. They are valid for all users' views.

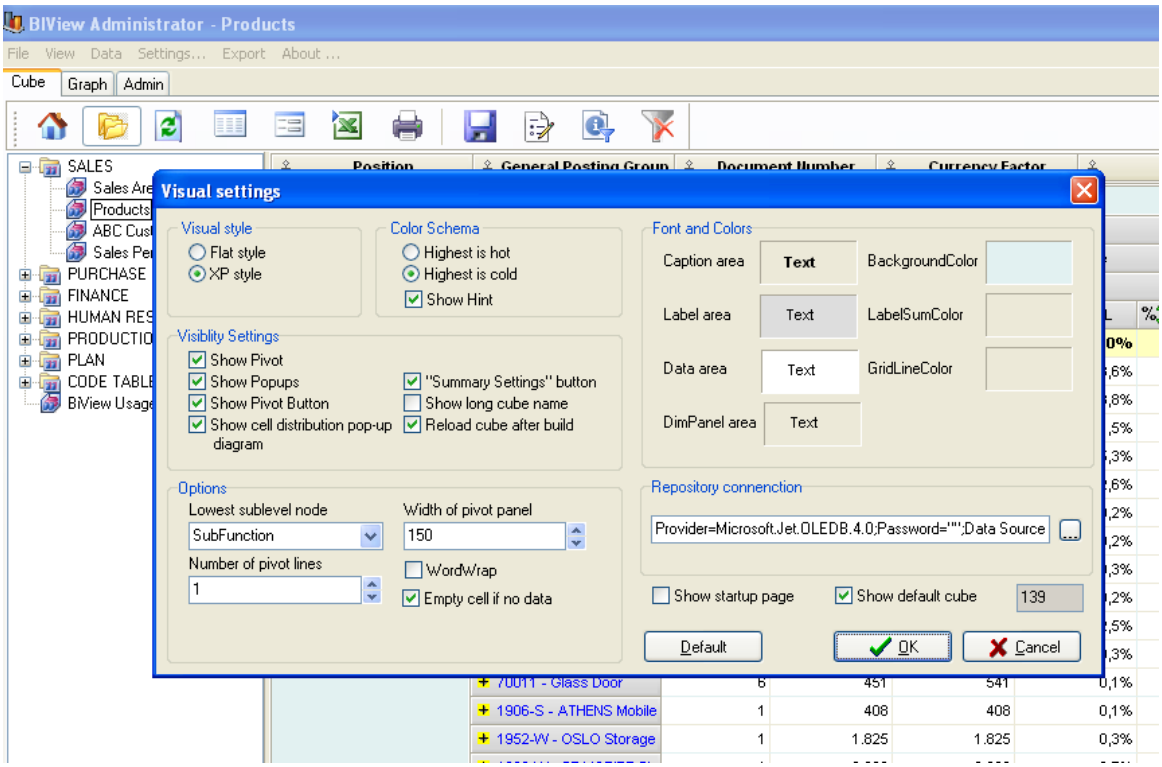


Figure 7: Visual settings menu

4.1 Visual style

4.1.1 Flat style

Simple, graphic style (no colour shading, no edge rounding)

4.1.2 XP style

Opposite to flat style. Advanced graphic style and possibilities are available (colour shading, edge rounding).

4.2 Colour schema

4.2.1 Highest is hot

The highest value in the column under the mouse changes colour to red and the lowest value to green. The fileds with values between the two change to third colour.

4.2.2 Highest is cold

The highest values in the column under the mouse changes colour to green and the lowest value to red. The fileds with values between the two change to third colour.

4.2.3 Show hint

If you position the cursor on a column for at least 2 seconds, the fields automatically change colour depending on the chosen colour for the highest values (hot, cold).

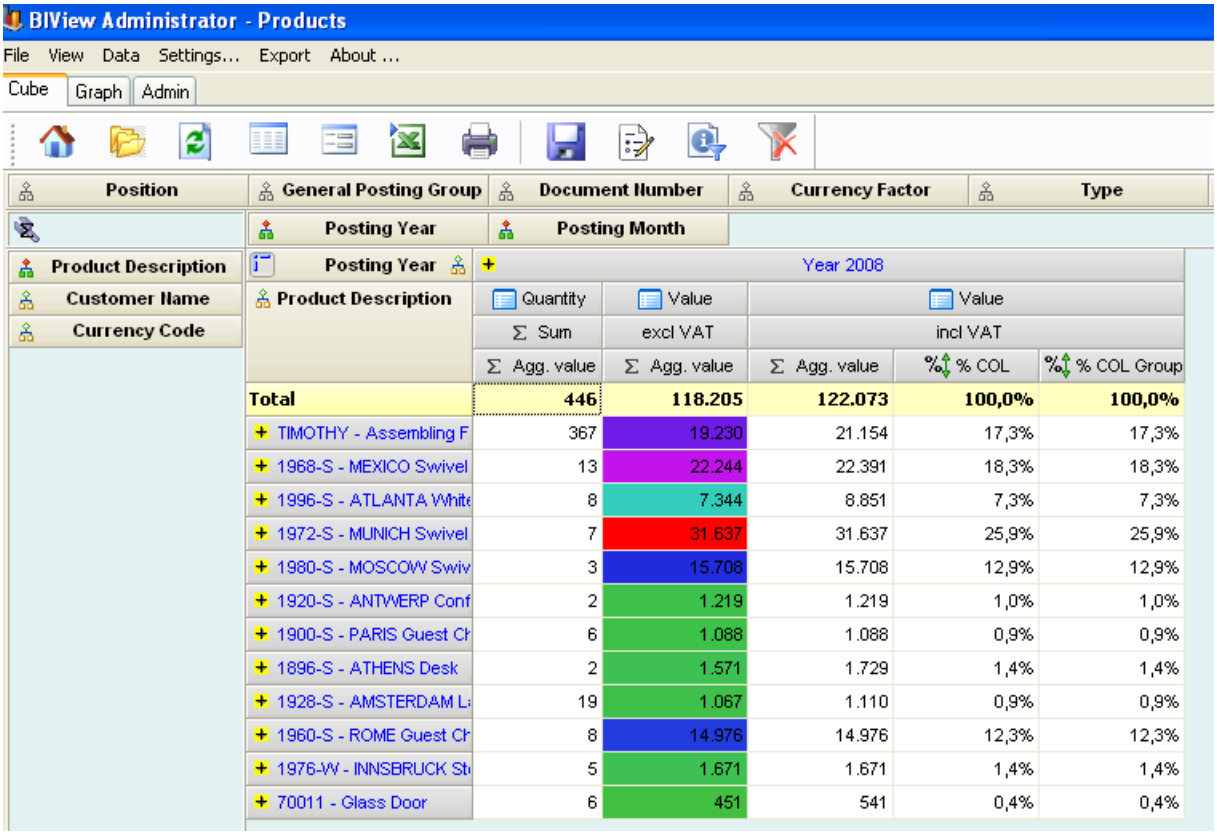


Figure 8: Highest is hot

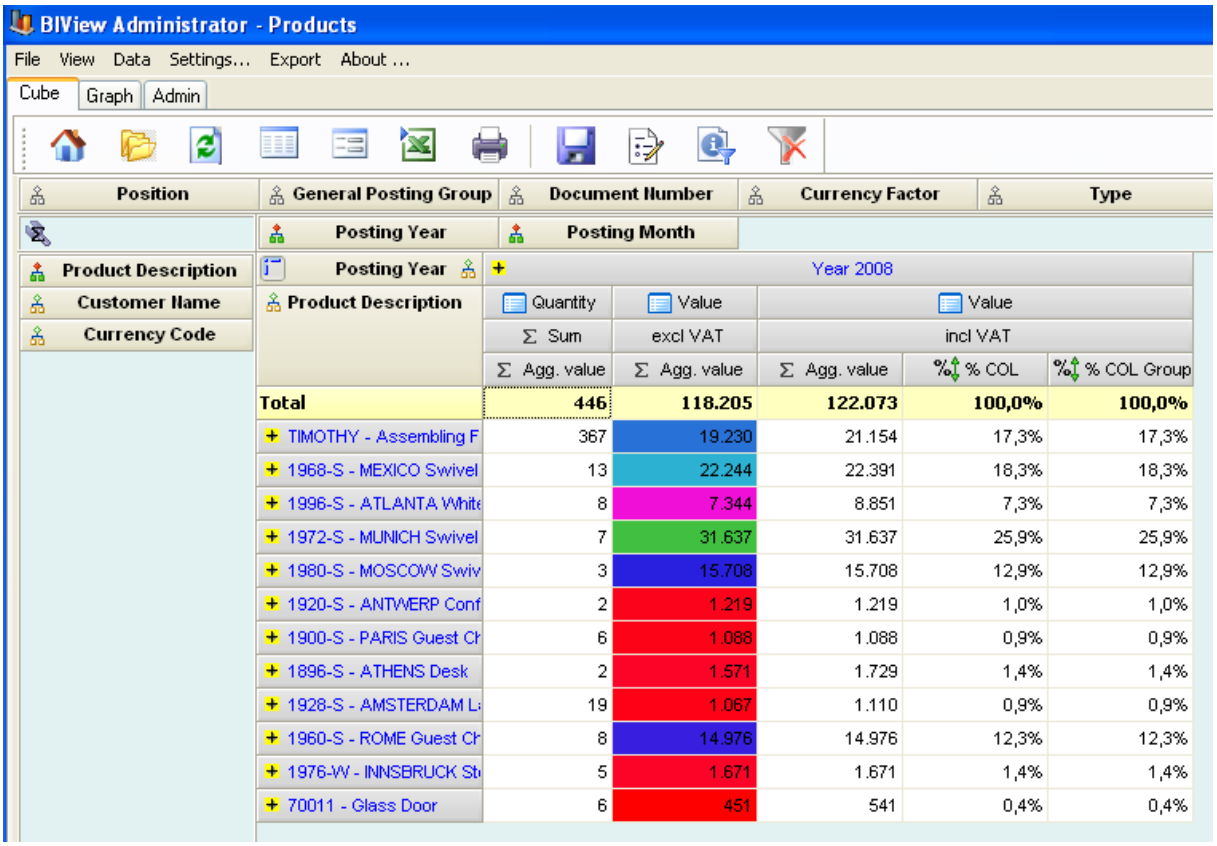


Figure 9: Highest is cold

4.3 Visibility Settings

4.3.1 Show Pivot

All dimensions are shown, also in the dimensions parking.

4.3.2 Show Popups

Menus are available on the right mouse button click.

4.3.3 Show »Pivot« button

The button hide pivot panel is visible.

4.3.4 Show cell distribution pop-up diagram

4.3.5 »Summary Settings« button

»Summary settings« button is visible.

4.3.6 Show long cube name

In the upper window full cube path the refreshment timestamp and volume data (kB) are shown.

4.3.7 Reload cube after build

4.4 Options

4.4.1 Lowest sublevel node

This function enables to see three, two, or one level within the table. You can choose: SubFunction, Function or Summary. When the SubFunction level is chosen mathematical and statistical functions and sub functions are available on right mouse button click. When the Function level is chosen, only level of mathematical and statistical functions are available. When the Summary level is chose, there are no mathematical and/or statistical functions available.

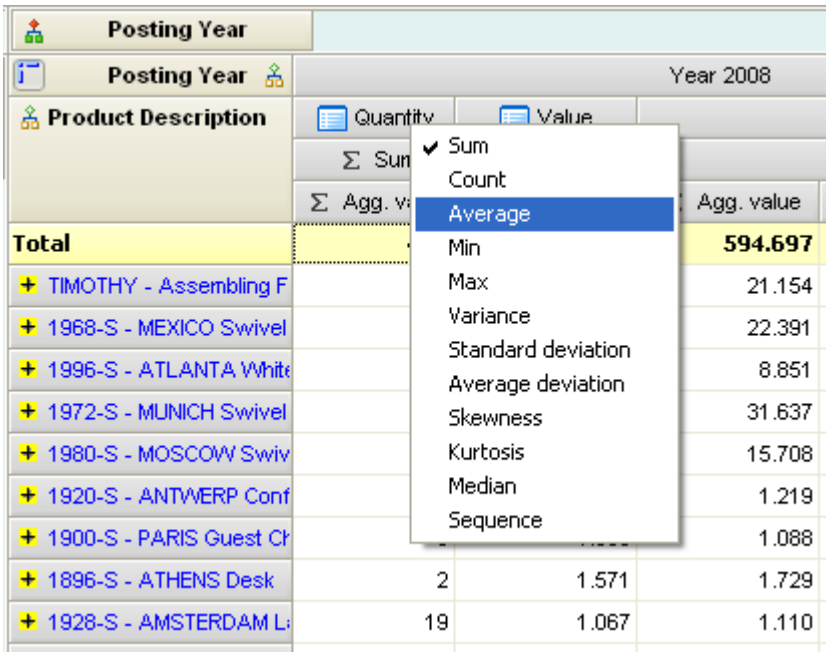


Figure 10: Sub function level enables selection of mathematical and/or statistical sub functions

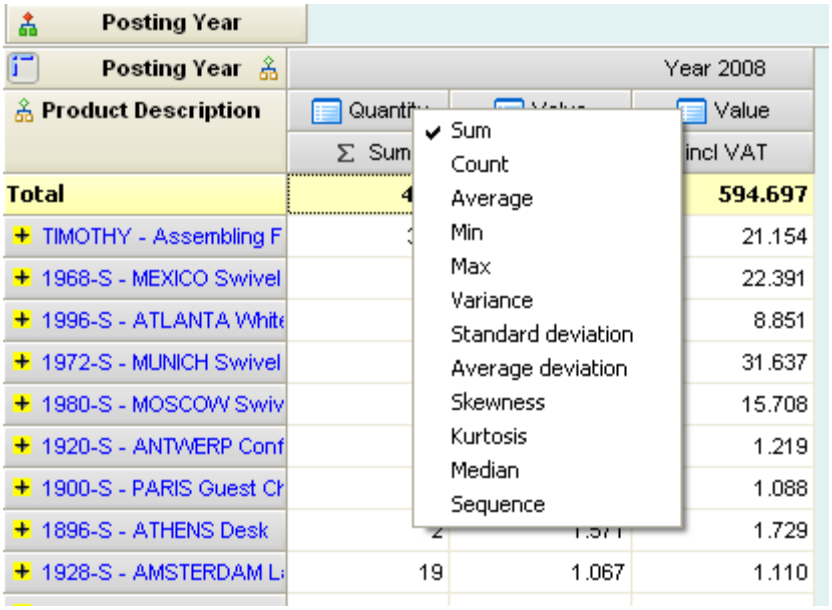


Figure 11: Function level enables selection of mathematical and/or statistical functions

Posting Year			
Posting Year			Year 2008
Product Description	Quantity	Value	Value
Total	**473**	**589.698**	**594.697**
+ TIMOTHY - Assembling F	367	19.230	21.154
+ 1968-S - MEXICO Swivel	13	22.244	22.391
+ 1996-S - ATLANTA White	8	7.344	8.851
+ 1972-S - MUNICH Swivel	7	31.637	31.637
+ 1980-S - MOSCOW Swiv	3	15.708	15.708
+ 1920-S - ANTWERP Conf	2	1.219	1.219
+ 1900-S - PARIS Guest Ch	6	1.088	1.088
+ 1896-S - ATHENS Desk	2	1.571	1.729
+ 1928-S - AMSTERDAM L	19	1.067	1.110
+ 1960-S - ROME Guest Ch	8	14.976	14.976
+ 1976-W - INNSBRUCK St	5	1.671	1.671
+ 70011 - Glass Door	6	451	541

Figure 12: Summary level

4.4.2 Number of pivot lines

It is used to define dimensions' button size in the cube and parking dimension.

BIView Administrator - Products

File View Data Settings... Export About ...

Cube Graph Admin

Position | General Posting Group | Posting Month | Document Number | Currency Factor

Product Description | Customer Name | Currency Code

Posting Year					
Product Description	Year 2008				
	Quantity	Value	Value		
	Σ Sum	excl VAT	incl VAT		
	Σ Agg. value	Σ Agg. value	Σ Agg. value	% COL	% COL Group
Total	**448**	**120.437**	**124.305**	**100,0%**	**100,0%**
+ TIMOTHY - Assembling F	367	19.230	21.154	17,0%	17,0%
+ 1968-S - MEXICO Swivel	13	22.244	22.391	18,0%	18,0%
+ 1996-S - ATLANTA White	8	7.344	8.851	7,1%	7,1%
+ 1972-S - MUNICH Swivel	7	31.637	31.637	25,5%	25,5%
+ 1980-S - MOSCOW Swiv	3	15.708	15.708	12,6%	12,6%
+ 1920-S - ANTWERP Conf	2	1.219	1.219	1,0%	1,0%
+ 1900-S - PARIS Guest Ch	6	1.088	1.088	0,9%	0,9%
+ 1896-S - ATHENS Desk	2	1.571	1.729	1,4%	1,4%
+ 1928-S - AMSTERDAM L	19	1.067	1.110	0,9%	0,9%
+ 1960-S - ROME Guest Ch	8	14.976	14.976	12,0%	12,0%
+ 1976-W - INNSBRUCK St	5	1.671	1.671	1,3%	1,3%
+ 70011 - Glass Door	6	451	541	0,4%	0,4%
+ 1906-S - ATHENS Mobile	1	408	408	0,3%	0,3%
+ 1952-W - OSLO Storage	1	1.825	1.825	1,5%	1,5%

Figure 13: Number of pivot lines is 1

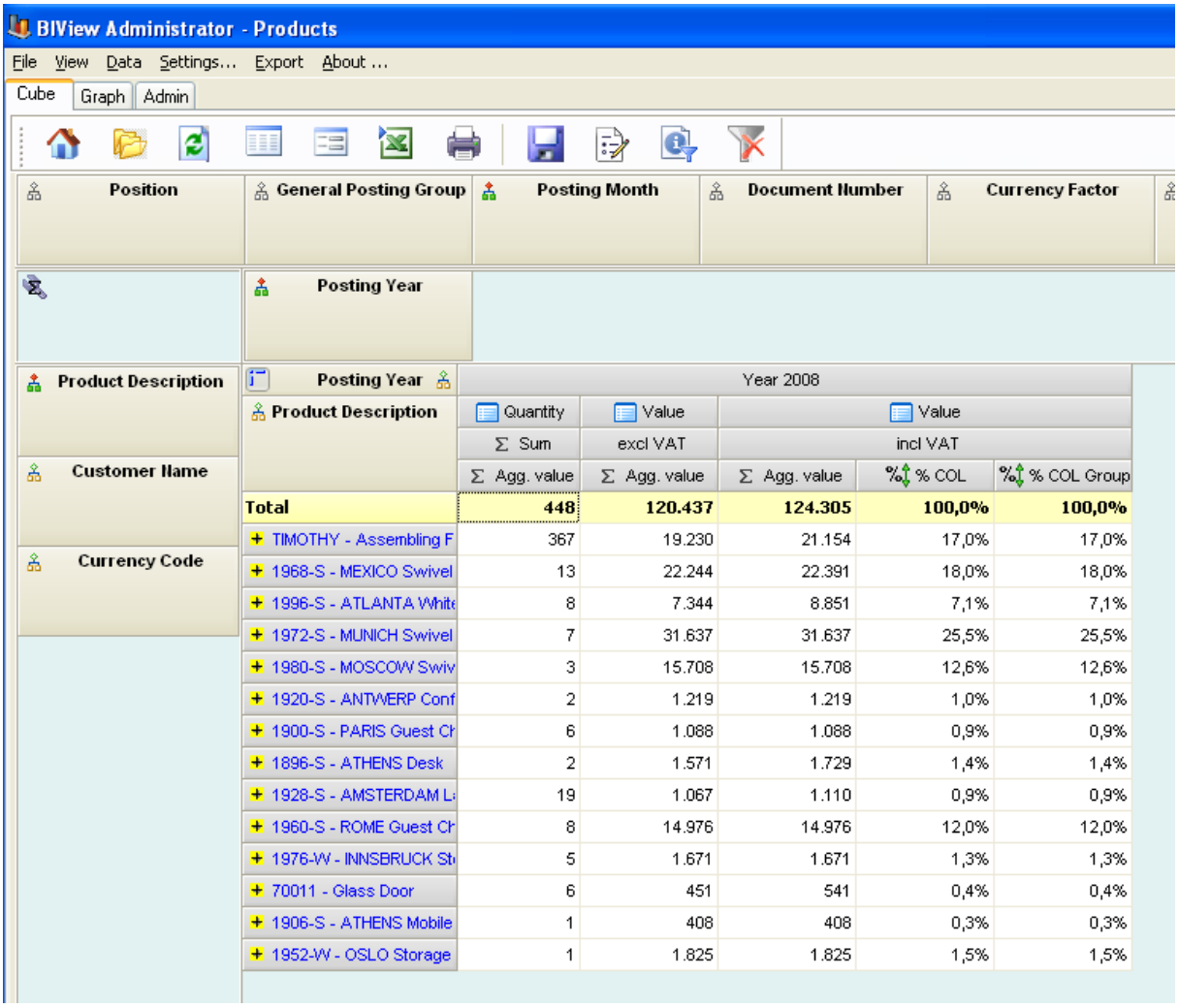


Figure 14: Number of pivot lines is 4

4.4.3 Width of pivot panel

It defines the width of dimension buttons.

4.4.4 Word Wrap

This function helps to wrap text when the column is shorter than the text.

Posting Year		
Product Description	Quantity	Value
	Σ Sum	excl VAT
	Σ Agg. value	Σ Agg. value
Total	**448**	**120.437**
+ TIMOTHY - Assembling I	367	19.230
+ 1968-S - MEXICO Swive	13	22.244
+ 1996-S - ATLANTA Whi	8	7.344
+ 1972-S - MUNICH Swive	7	31.637
+ 1980-S - MOSCOW Swi	3	15.708
+ 1920-S - ANTWERP Cor	2	1.219
+ 1900-S - PARIS Guest C	6	1.088
+ 1896-S - ATHENS Desk	2	1.571
+ 1928-S - AMSTERDAM L	19	1.067

Figure 15: Function Word Wrap is not selected

Posting Year		
Product Description	Quantity	Value
	Σ Sum	excl VAT
	Σ Agg. value	Σ Agg. value
Total	**448**	**120.437**
+ TIMOTHY - Assembling Furniture, January	367	19.230
+ 1968-S - MEXICO Swivel Chair, black	13	22.244
+ 1996-S - ATLANTA Whiteboard, base	8	7.344
+ 1972-S - MUNICH Swivel Chair, yellow	7	31.637
+ 1980-S - MOSCOW Swivel Chair, red	3	15.708
+ 1920-S - ANTWERP Conference Table	2	1.219
+ 1900-S - PARIS Guest Chair, black	6	1.088
+ 1896-S - ATHENS Desk	2	1.571
+ 1928-S - AMSTERDAM Lamp	19	1.067

Figure 16: Function Word Wrap is selected

4.4.5 Empty cell if no data

If this function is chosen, the cell will be empty in case of no data. Otherwise, the symbol N/P is written in the empty cell with no data.

Department	G_L_Account	Turnover %
		%
		Σ Agg. value
Total vsi		**-0,10**
+		291,52
+ MERCEDES		177,20
− TOYOTA	0501	
	2701	
	0422	
	1600	
	1602	
	4022	
	4023	
	4021	97,92
	4123	111,76
	4340	105,32
	Total	721,68
+ VW		728,50

Figure 17: Empty cell if no data

Department	G_L_Account	Turnover %
		%
		Σ Agg. value
Total vsi		**-0,10**
+		291,52
+ MERCEDES		177,20
− TOYOTA	0501	N/P
	2701	N/P
	0422	N/P
	1600	N/P
	1602	N/P
	4022	N/P
	4023	N/P
	4021	97,92
	4123	111,76
	4340	105,32
	Total	721,68
+ VW		728,50

Figure 18: Not empty cell, if no data

4.4.6 Show data info

You can get full data info for each table cell by selecting »Show data info« clicking the right mouse button. By moving along the cells information is changing according to the cell's content.

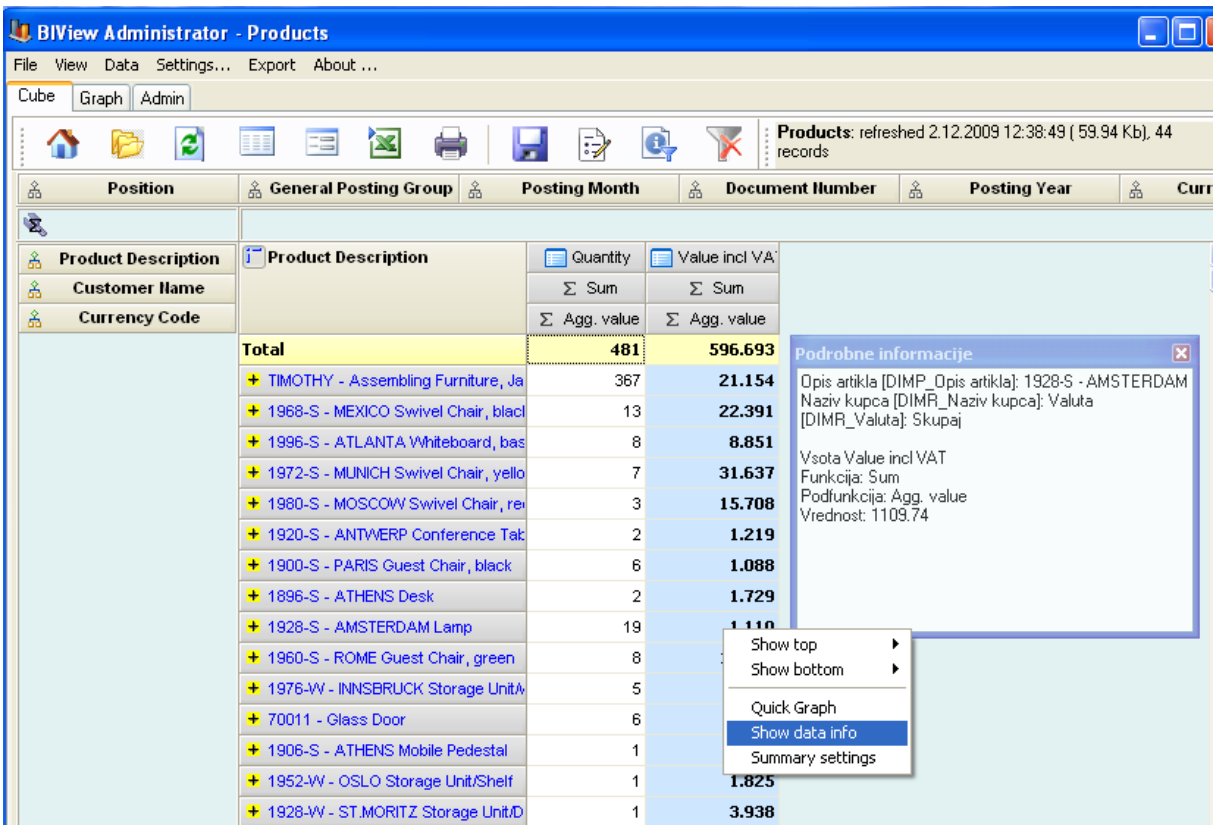


Figure 19: Show data info about specific cell

4.5 Fonts and colours

This function enables graphical design of:

- captions,
- labels,
- data,
- dimensions,
- backgrounds,
- label sums,
- gridlines.

You can define a text style and a background design for each of these elements. By clicking text or background you are guided to text or colour menus.

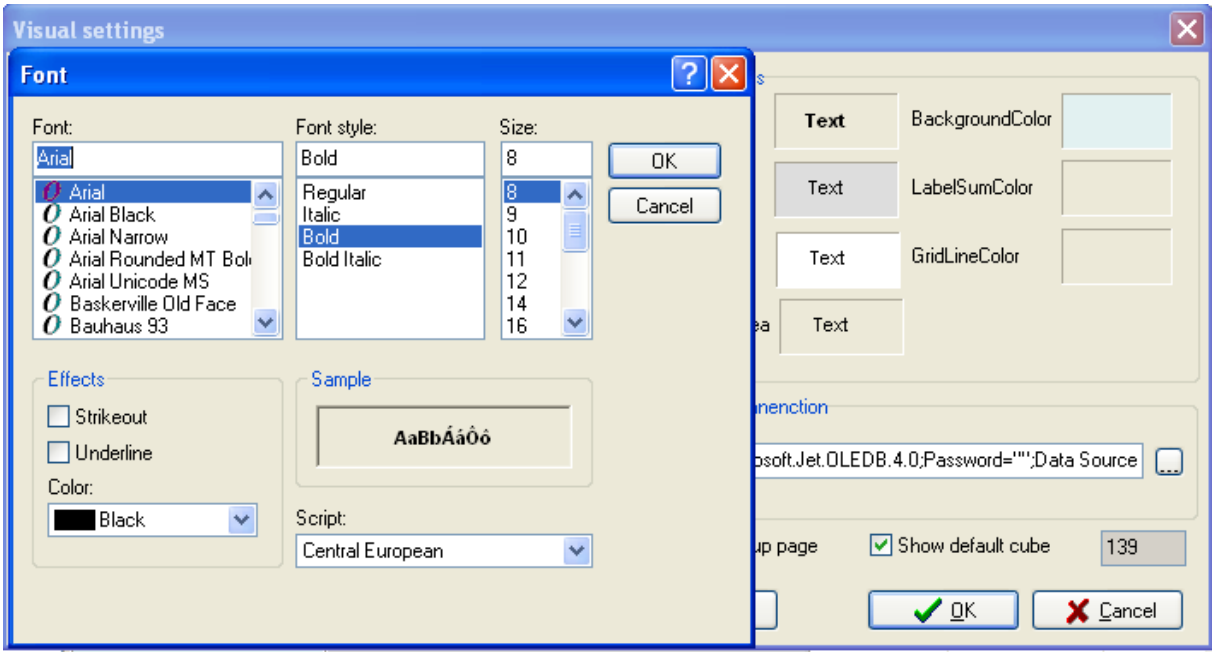


Figure 20: Choice of text's fonts and style

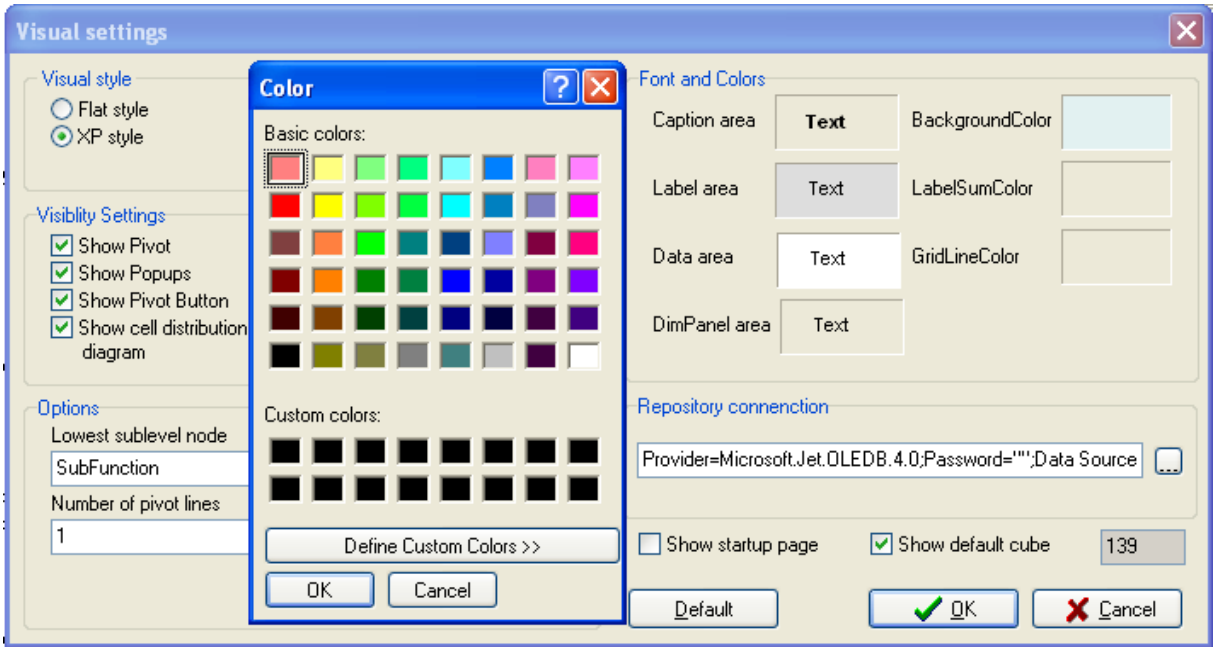


Figure 21: Selection of colours for Caption area

4.6 Repository connection

In the repository connection you have to define a data provider and a repository database (repository.mdb). After specifying the connection you should verify it by test connection button *(Test connection)*.

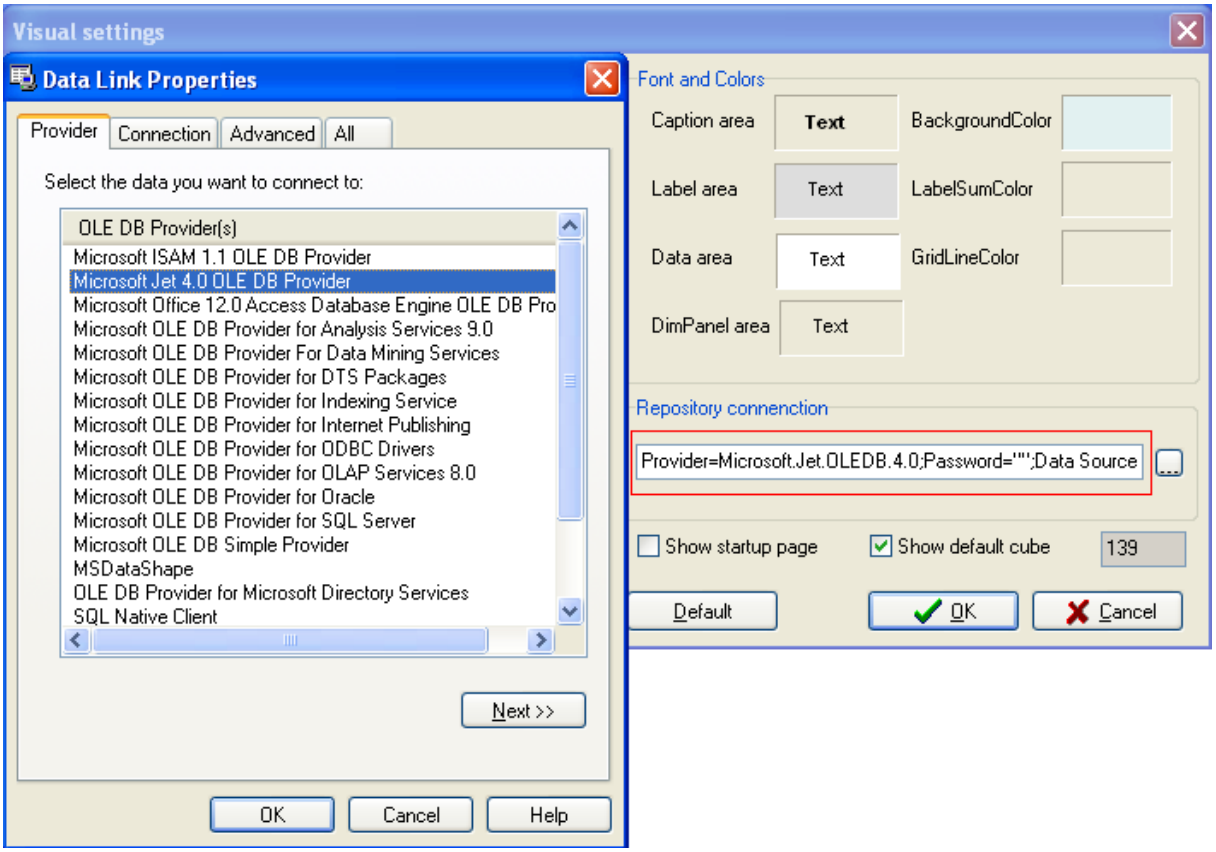


Figure 22: Data link properties: defining provider

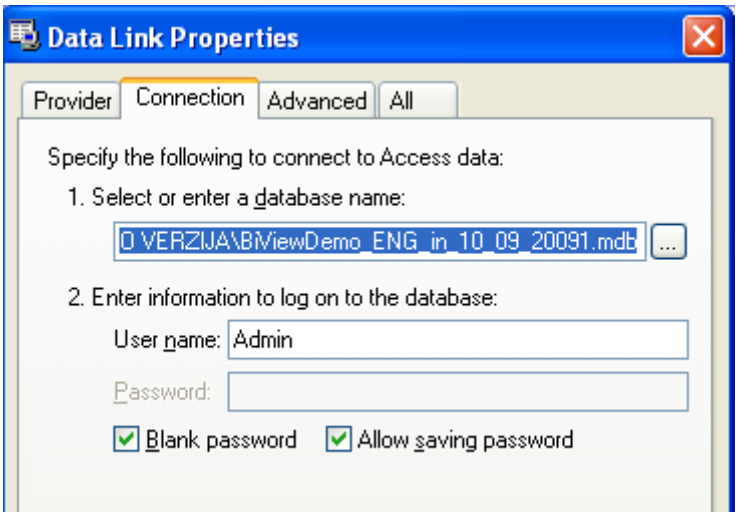


Figure 23: Data link properties: defining connection

Connection tab

1) Select or enter a repository database name
2) Enter information to log on to the repository database; two options:
    a. blank password
    b. allow saving password

There is nothing to change on Advanced and All tabs. Only Provider and Connection tabs must be defined.

4.7 Default

By clicking this button you assume default settings (colours, text style) from upper level. In case of user's level you assume general default settings. In case of view's level you assume user's default level.

5 Export

This function selects export to other programs or directly to print. Export possibilities are the following:

- MS Excel (three possibilities are available: to file with *.xls extension, directly to Excel, or to Excel with transformation)
  Excel with transformation is useful in case of particular views where the final table look in Excel is defined and there are specific conditions for data transformation from BIView to Excel.
- HTML
- XML (there are two options: XML for MS Office, XML for MS Analysis)
- RTF
- Metafile (WMF)
- Print
- PDF
- CSV
- BMP.

By exporting views from BIView to Excel, html, wmf, or bmp colors, fonts and design remain unchanged.

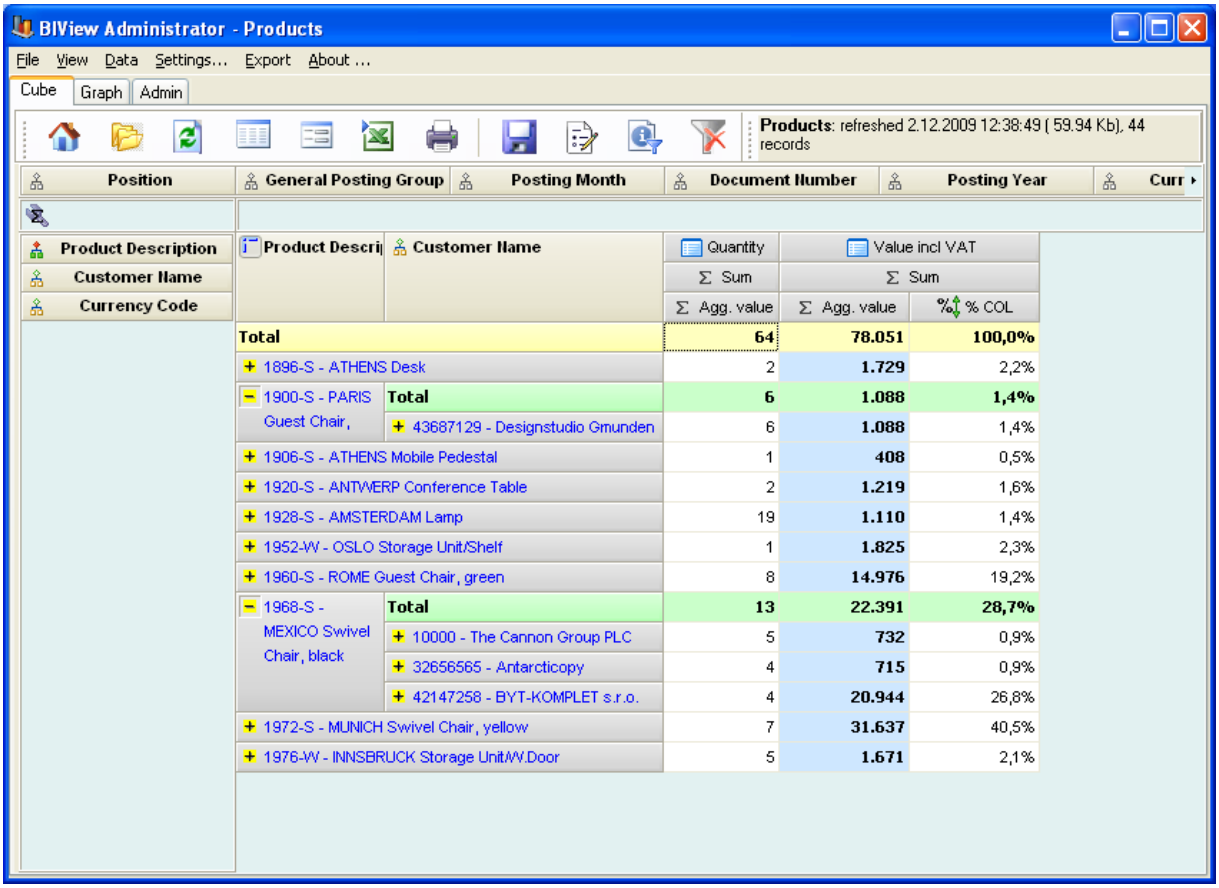


Figure 24: A cube in BIView

Product Description	Customer Name	Quantity	Value incl VAT	
		Sum	Sum	
		Agg. value	Agg. value	% COL
Total		**64**	**78.051**	**100,0%**
1896-S - ATHENS Desk		2	**1.729**	2,2%
1900-S - PARIS Guest Chair, black	**Total**	**6**	**1.088**	**1,4%**
	43687129 - Designstudio Gmunden	6	**1.088**	1,4%
1906-S - ATHENS Mobile Pedestal		1	**408**	0,5%
1920-S - ANTWERP Conference Table		2	**1.219**	1,6%
1928-S - AMSTERDAM Lamp		19	**1.110**	1,4%
1952-W - OSLO Storage Unit/Shelf		1	**1.825**	2,3%
1960-S - ROME Guest Chair, green		8	**14.976**	19,2%
1968-S - MEXICO Swivel Chair, black	**Total**	**13**	**22.391**	**28,7%**
	10000 - The Cannon Group PLC	5	**732**	0,9%
	32656565 - Antarcticopy	4	**715**	0,9%
	42147258 - BYT-KOMPLET s.r.o.	4	**20.944**	26,8%
1972-S - MUNICH Swivel Chair, yellow		7	**31.637**	40,5%
1976-W - INNSBRUCK Storage Unit/W.Door		5	**1.671**	2,1%

Figure 25: Exported cube in Excel

6 About

General information about the program is displayed in this window (Xplorer or Xplorer Pro, version number, repository, company name, BIView webpage).

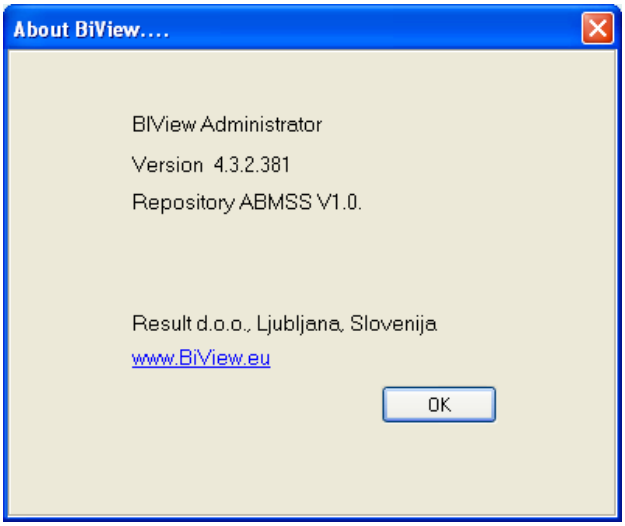


Figure 26: BIView about window

7 Description of buttons

There are some important buttons which help users to be fast and effective working with BIView.

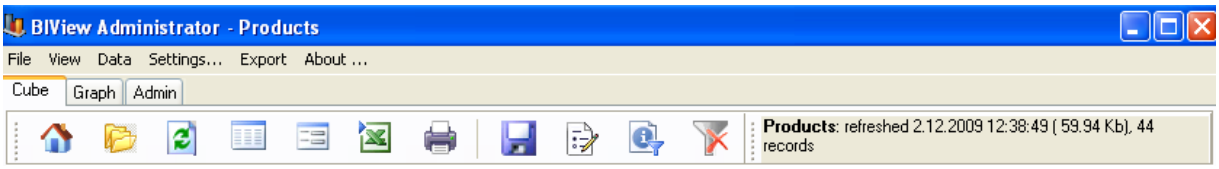


Figure 27: Buttons in usage

	Hide list	Hide view list
	Refresh list	Refresh view list. If the view/table has got open lower levels, it closes them.
	Close all levels	It closes all open levels in the view/table.
	Expand all levels	It expands all levels in the view/table.
	Export to MS Excel	It exports the view/table as it is directly to MS Excel.
	Print	It enables direct view/table printing.
	Save current view	It saves current view. This function is available only in BIView Xplorer Pro.
	Settings	It opens setting menu for selected view.
	View info	It shows view ID, refreshment time (date, hour), data volume, dimensions in the view, number of dimension members for each dimension, filtered dimensions.
	Show all members	It deletes all filters on the view.
	Info about opened view and last data loading	View name, refreshment time (date, hour), data volume
	Increase/decrease size	In the bottom right corner is a slider for increasing or decreasing the font size of views, queries and the view list

8 Visual settings for particular view

Visual settings for particular views have almost the same characteristics as general visual settings, except that their selection affects only to a selected view. The only exception among those two visual settings is that there is no repository connection in the view visual settings because it is not needed. Full detailed description for view visual settings is in Chapter 4 .

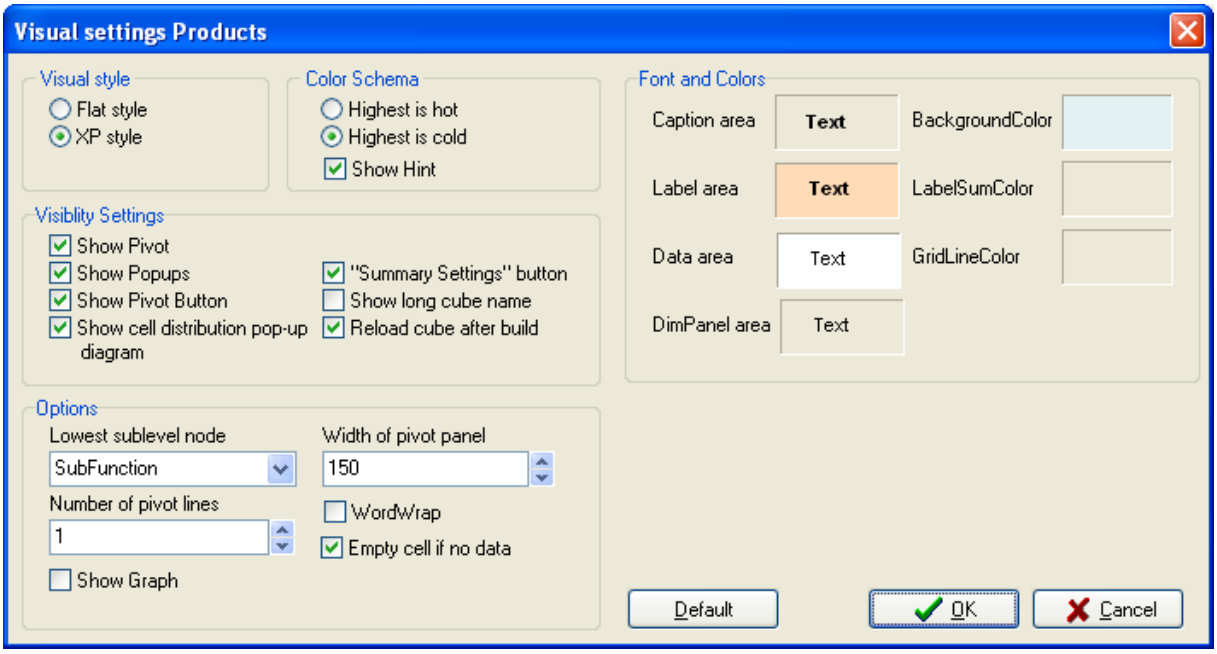


Figure 28: Visual settings for an individual view (Product view)

9 Dimension editor

Dimension editor has made from three different content areas:

- Dimension settings (It includes defining properties)
- Dimension members (It enables work with dimension members – sorting, filtering, searching, choosing specific dimension members)
- Groups (it enables opening new groups and sorting dimension members to groups)

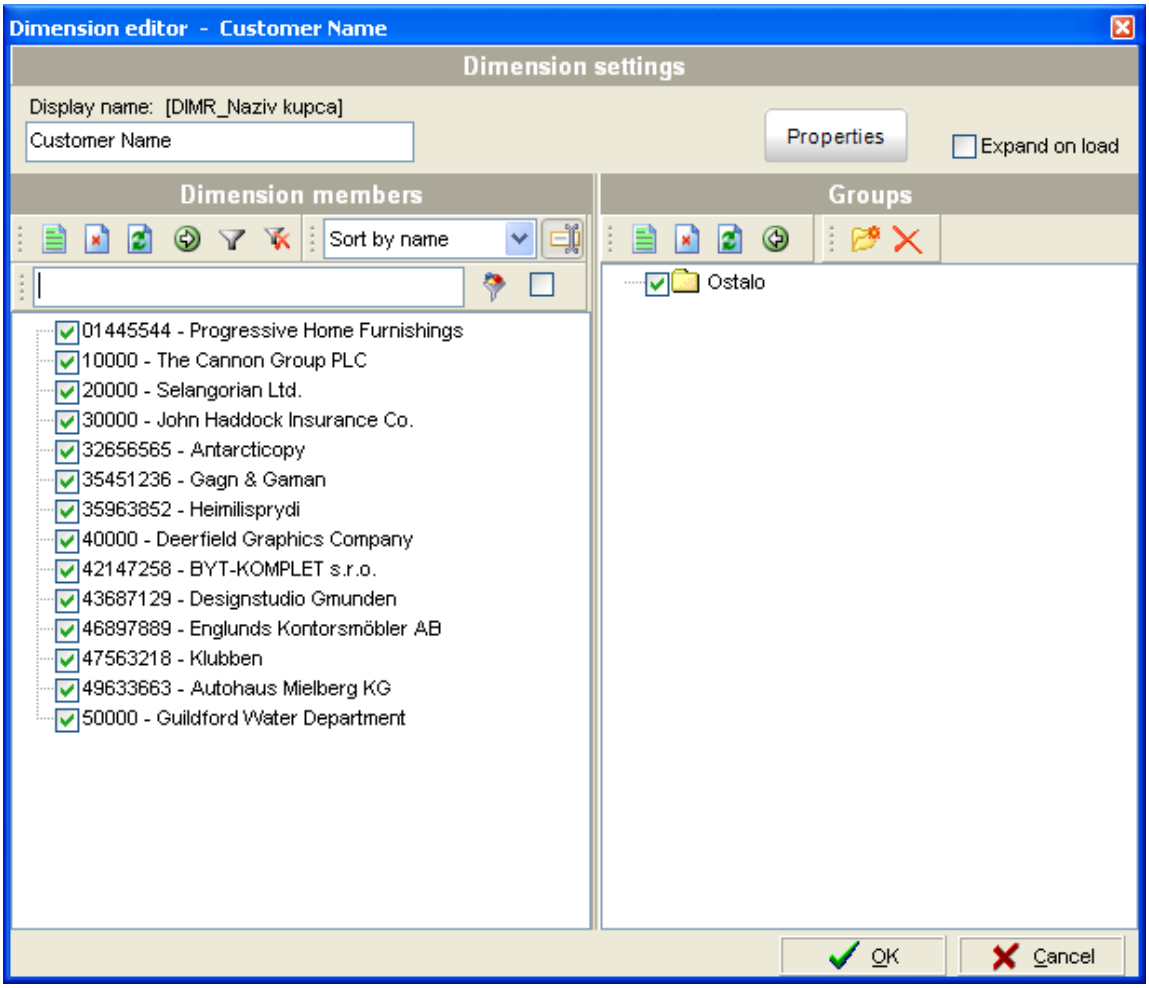


Figure 29: Dimension editor

9.1 Dimension settings

Dimension settings include displayed dimension name and properties (dimension editor).

9.1.1 Display name

Dimension settings enables changing of displayed dimension name. The original dimension name is written in square brackets; you can change it by writing down a new displayed dimension name.

9.1.2 Properties

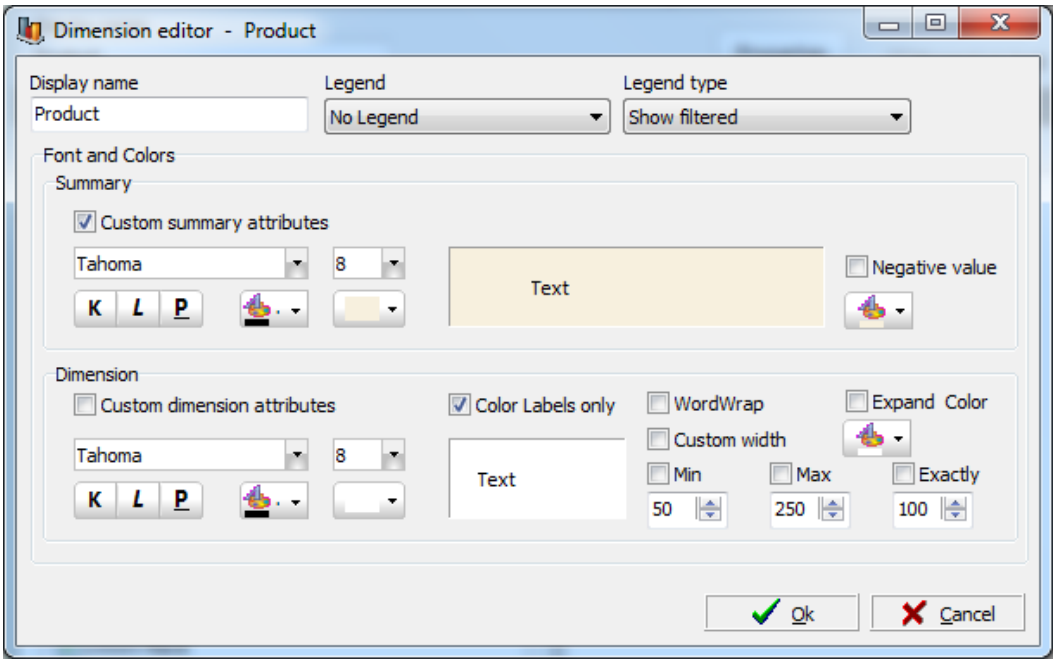


Figure 30: Properties in Dimension editor (BIView Xplorer)

9.1.2.1 Display name

Displayed dimension name. You can change it.

9.1.2.2 Legend

There are three possibilities:

- No legend
- Small legend
- Full legend

9.1.2.3 Legend type

Legend type can show filtered or unfiltered data.

9.1.2.4 Fonts and colours

You can define summary and dimension attributes (text and background). You can also define visual settings for negative dimension sum values.

9.1.2.5 Word wrap

You can turn on/of f a word wrap function for dimension members' names.

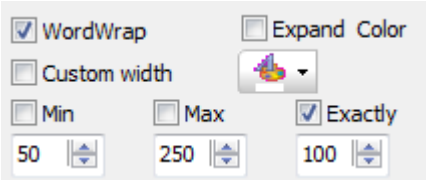


Figure 31: WordWrap

9.1.2.6 Custom width

This function is used for defining dimension column width(exactly, min or/and max).

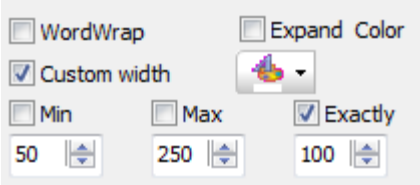


Figure 32: Custom width

Min – the column cannot be thiner than defined
Max - the column cannot be wider than defined
Exactly – the column is wide exactly defined

With right mouse click on dimension you can custom width turn on or off

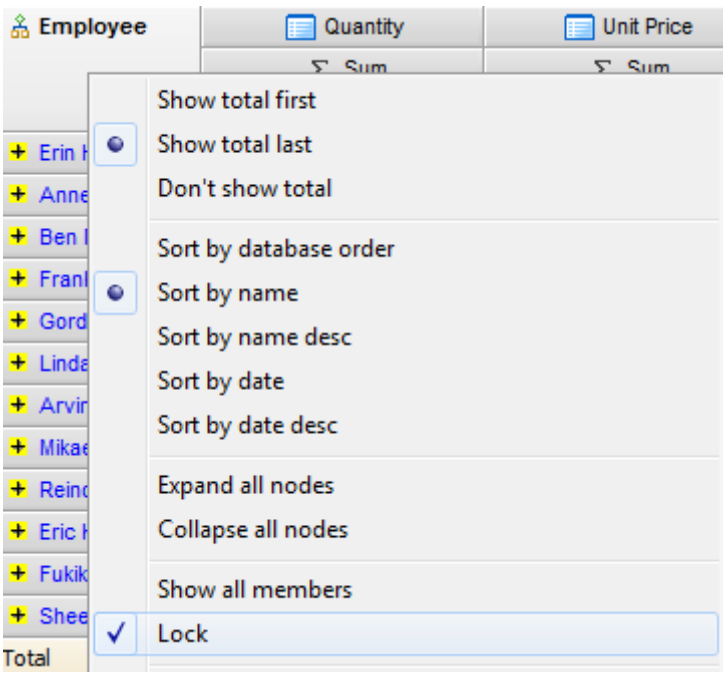


Figure 33: Locking the column width on a dimension

9.1.3 Expand on load

If »expand on load« is selected, all dimension members will be opened when a view will be loaded next time.

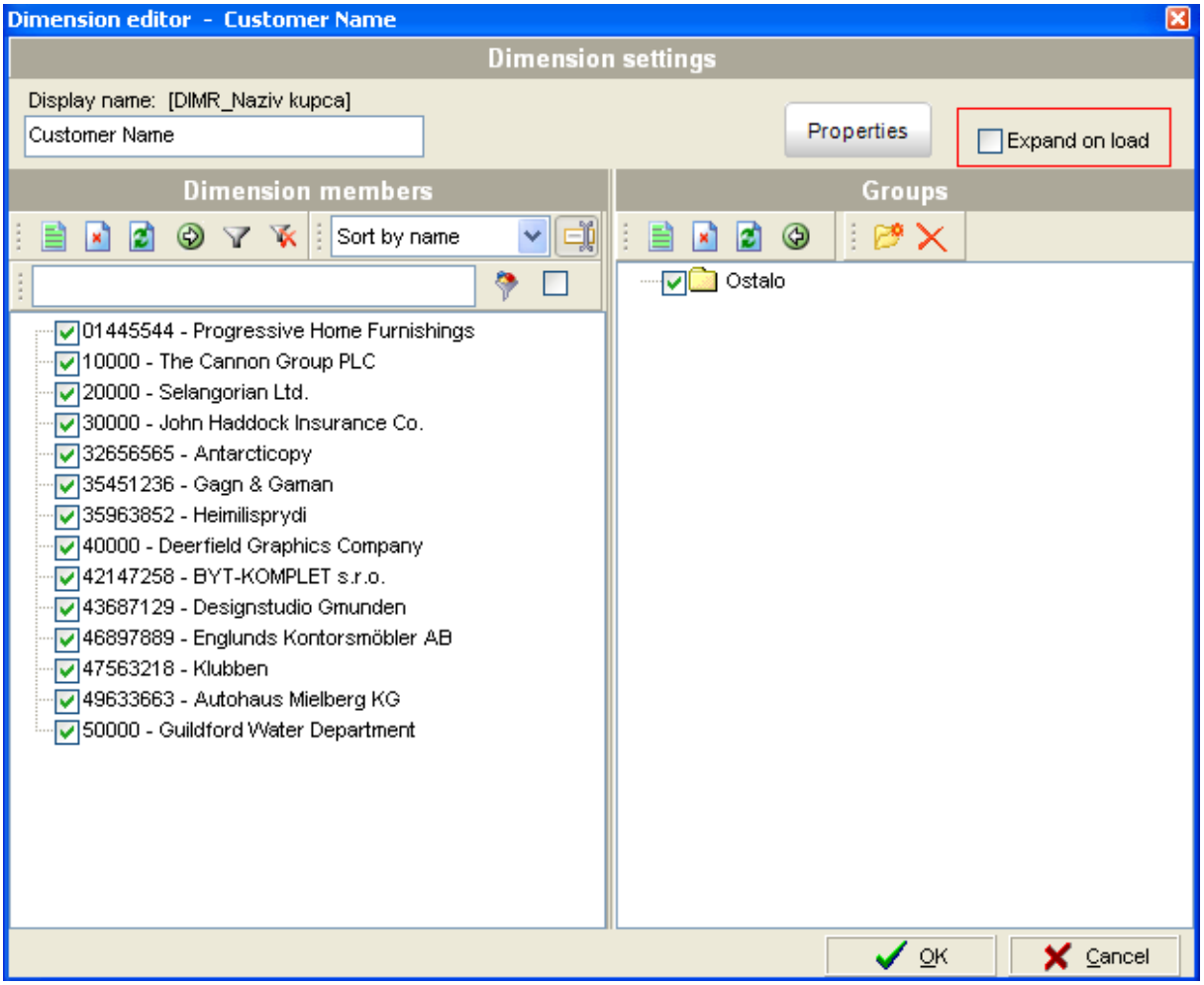


Figure 34: Expand on load

9.2 Dimension members

9.2.1 Select all

All dimension members are selected.

9.2.2 Select none

No dimension members are selected.

9.2.3 Inverse all

Inverses selection of dimension members (before selected dimension members became unselected; and the opposite).

9.2.4 Move selected to group

Selected dimension members can be moved to selected dimension group. You can create your own dimension group. The program will warn you if you don't select the group you want to move dimension members to. Choose selected dimension members by Shift mouse click to make them selected for the transfer to a particular group.

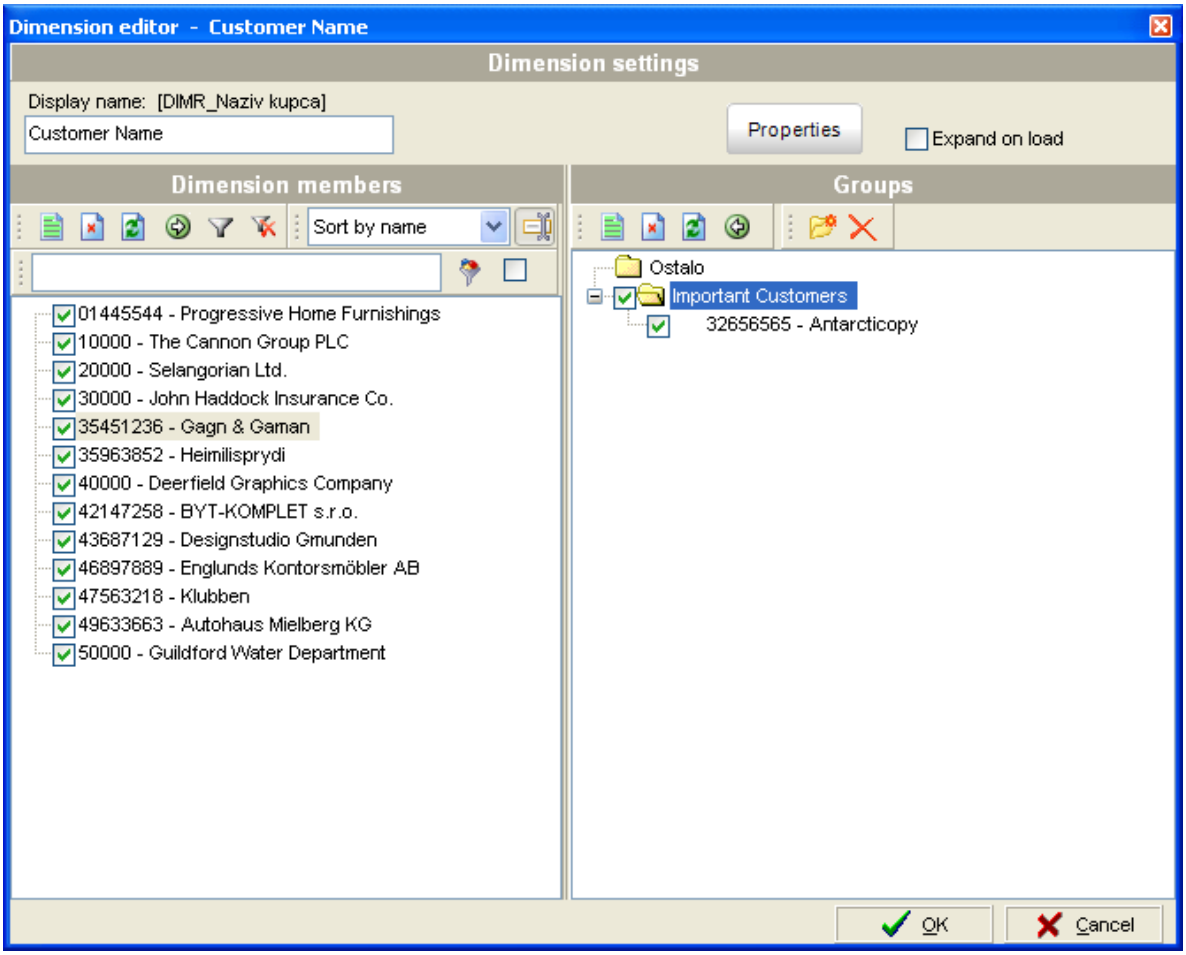


Figure 35: New group » Important Customers«

9.2.5 Show filtered/Unfiltered

It shows either filtered or unfiltered dimension members.

9.2.6 Sort by …

There are different possibilities for sorting:

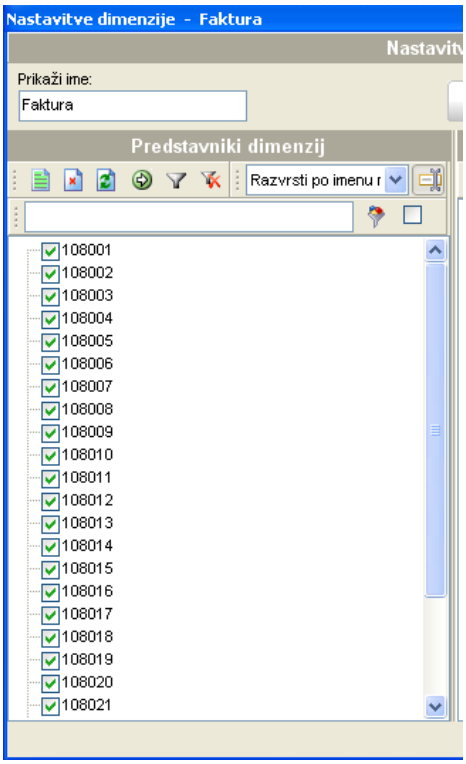
- Date – ascending order
- Date descending – descending order
- Name – ascending order, from a to z
- Name descending – descending order, from z to a
- Database order – how data were entered into the database

9.2.7 Hide/show filter panel

This function enables to hide/show filter panel.

9.2.8 Apply filter

It helps to find quickly and easily all dimension members which contain the search string you have defined.



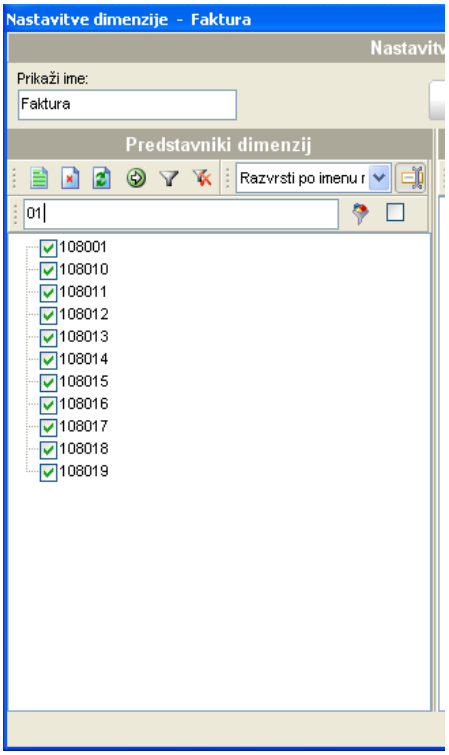
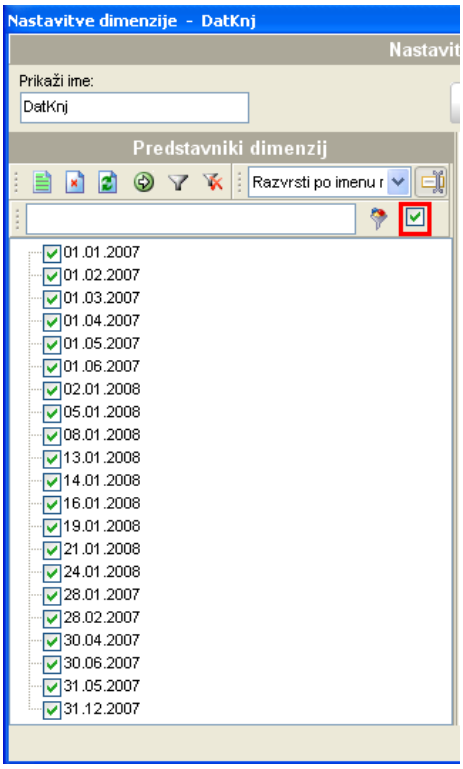


Figure 36: Dimension members – before filtering ***Figure 37: Filtered dimension members***

9.2.9 Search by part of name

This function helps you to find all dimension members which name starts with the search string.



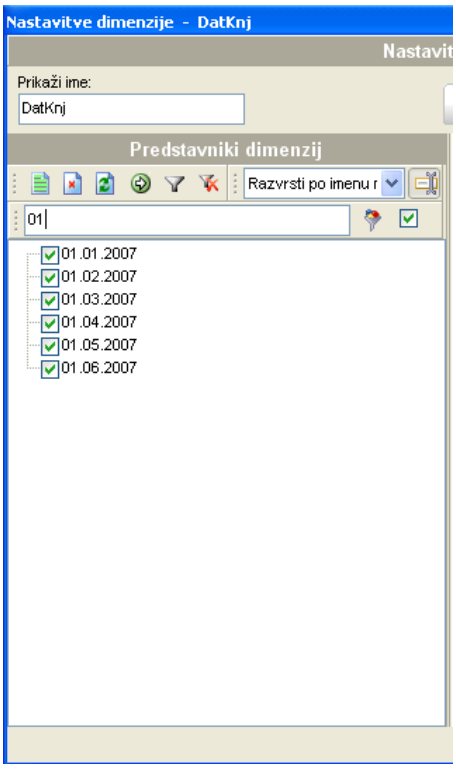


Figure 38: Dimension members – before filtering ***Figure 39: Filtered dimension members***

9.3 Groups

You can work with old or new created groups in this field.

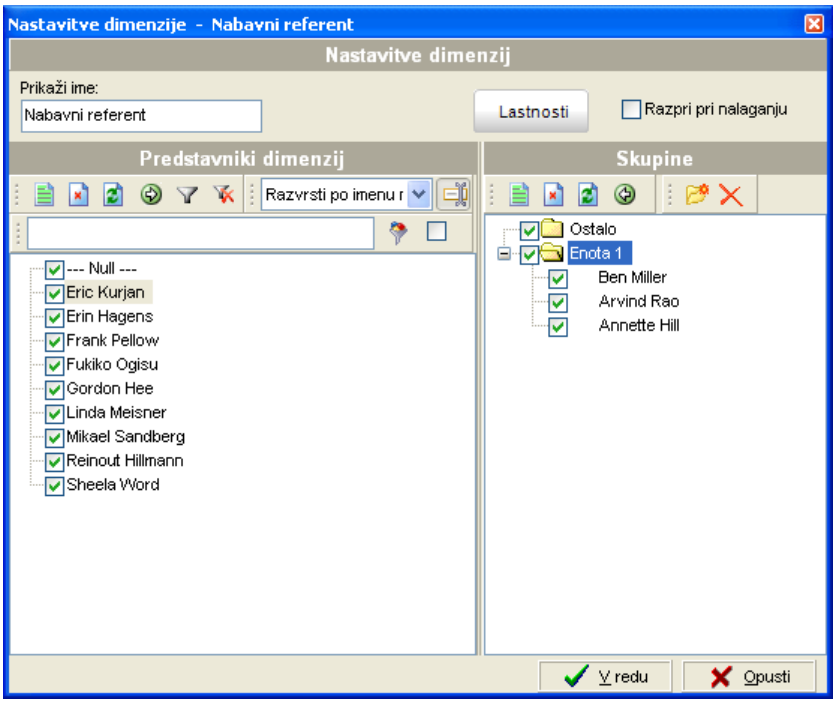
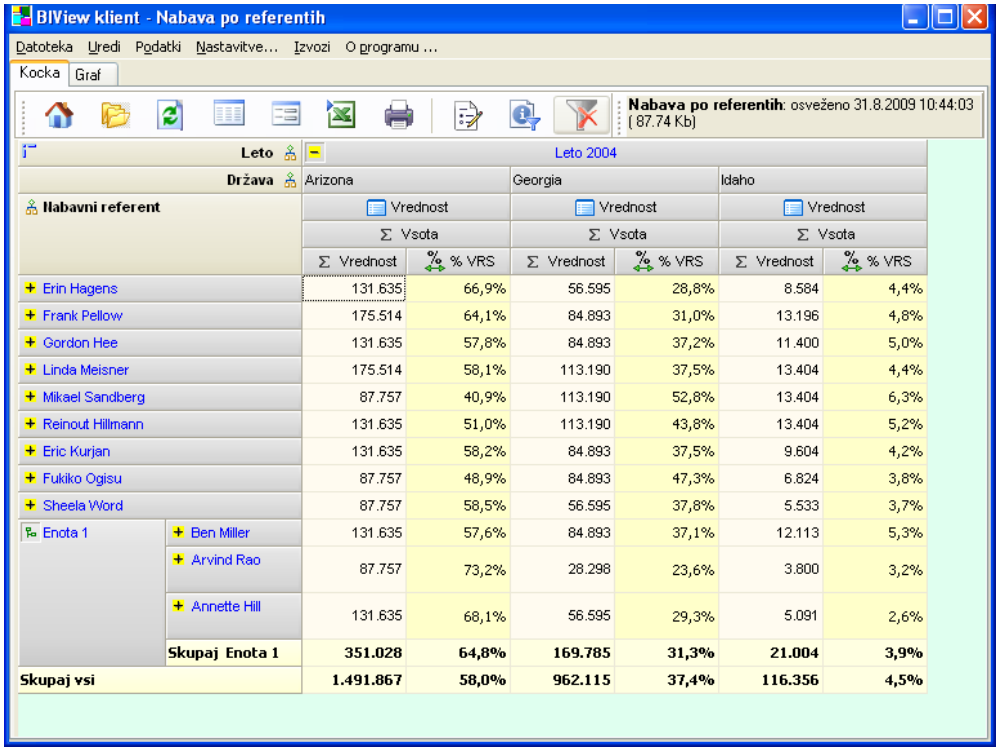


Figure 40: New group created



Leto		Leto 2004					
Država		Arizona		Georgia		Idaho	
Nabavni referent		Vrednost		Vrednost		Vrednost	
		Σ Vsota		Σ Vsota		Σ Vsota	
		Σ Vrednost	% VRS	Σ Vrednost	% VRS	Σ Vrednost	% VRS
Erin Hagens		131.635	66,9%	56.595	28,8%	8.584	4,4%
Frank Pellow		175.514	64,1%	84.893	31,0%	13.196	4,8%
Gordon Hee		131.635	57,8%	84.893	37,2%	11.400	5,0%
Linda Meisner		175.514	58,1%	113.190	37,5%	13.404	4,4%
Mikael Sandberg		87.757	40,9%	113.190	52,8%	13.404	6,3%
Reinout Hillmann		131.635	51,0%	113.190	43,8%	13.404	5,2%
Eric Kurjan		131.635	58,2%	84.893	37,5%	9.604	4,2%
Fukiko Ogisu		87.757	48,9%	84.893	47,3%	6.824	3,8%
Sheela Word		87.757	58,5%	56.595	37,8%	5.533	3,7%
Enota 1	Ben Miller	131.635	57,6%	84.893	37,1%	12.113	5,3%
	Arvind Rao	87.757	73,2%	28.298	23,6%	3.800	3,2%
	Annette Hill	131.635	68,1%	56.595	29,3%	5.091	2,6%
	Skupaj Enota 1	**351.028**	**64,8%**	**169.785**	**31,3%**	**21.004**	**3,9%**
Skupaj vsi		**1.491.867**	**58,0%**	**962.115**	**37,4%**	**116.356**	**4,5%**

Figure 41: New group display in a cube

9.3.1 Select all

It selects all dimension groups and dimension members, which are in defined groups.

9.3.2 Select none

None of the groups and dimension members is selected.

9.3.3 Inverse all

Current selection of groups is inversed.

9.3.4 Remove selected from group

It removes selected members from the group back to unselected dimension members.

9.3.5 Create new group

It creates new dimension group.

9.3.6 Delete item

You can delete particular element from the group or the total group. In case of deleting total group, all group members are returned to ungrouped dimension members.

9.3.7 Dimension members' numbering (sequence)

Choose »Sequence« function which will number all dimension members.

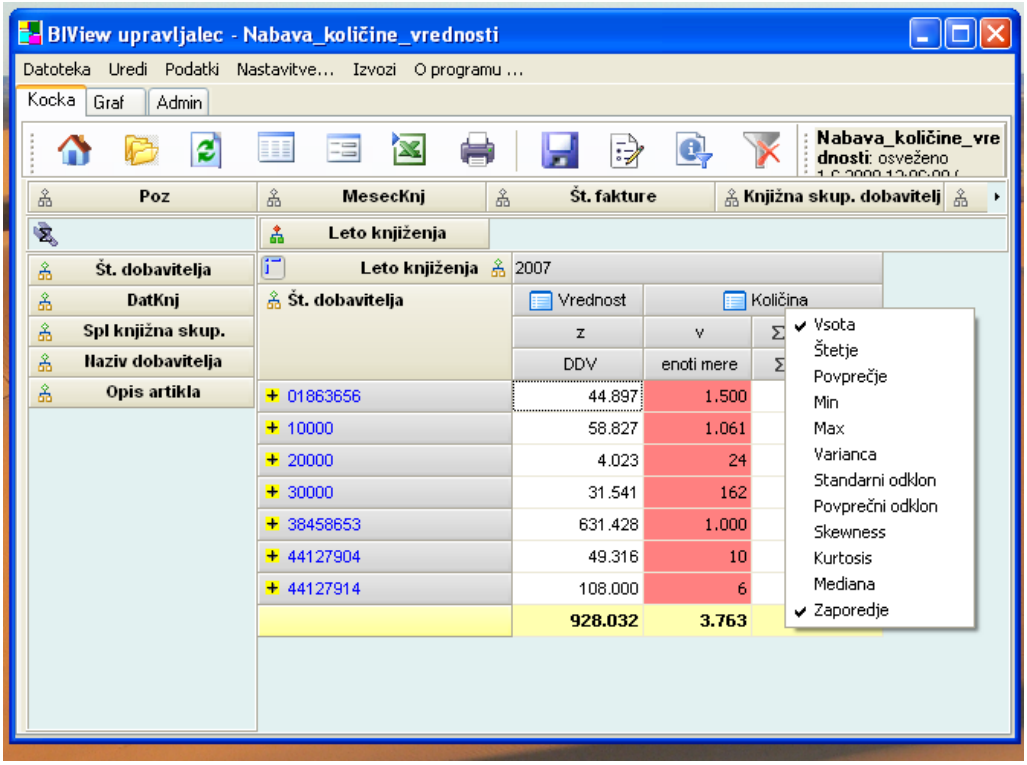


Figure 42: Right mouse button click on dimension (dimension numbering)

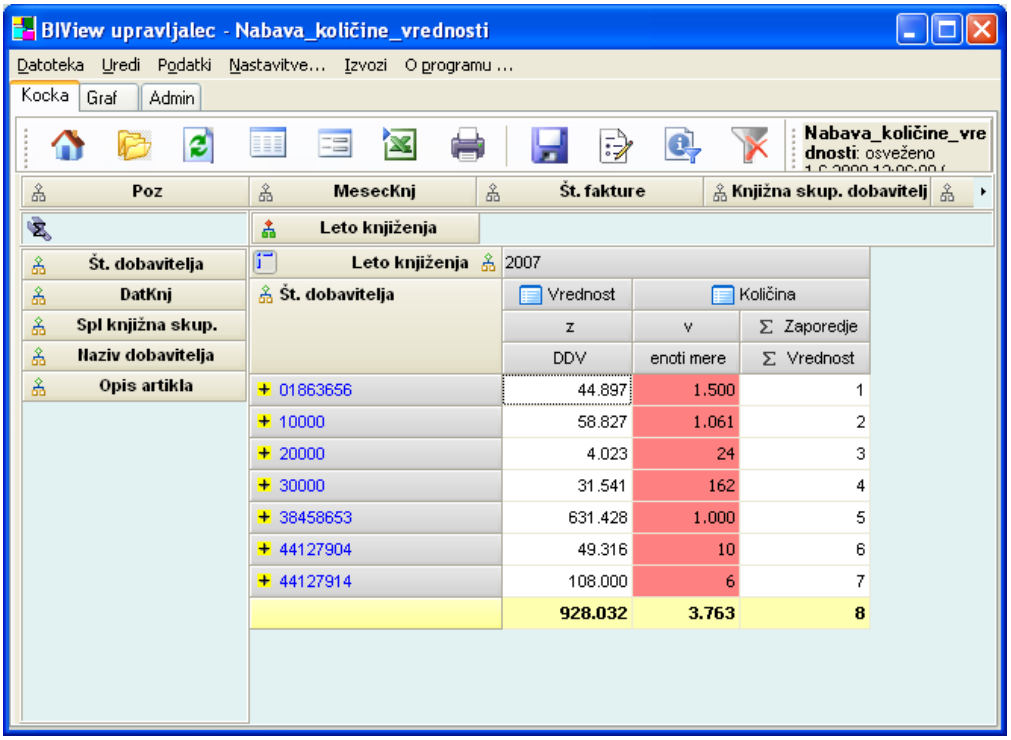


Figure 43: Dimension numbering (sequence)

10 Summary settings

Summary settings include two fields:

a) Summaries
b) Item properties.

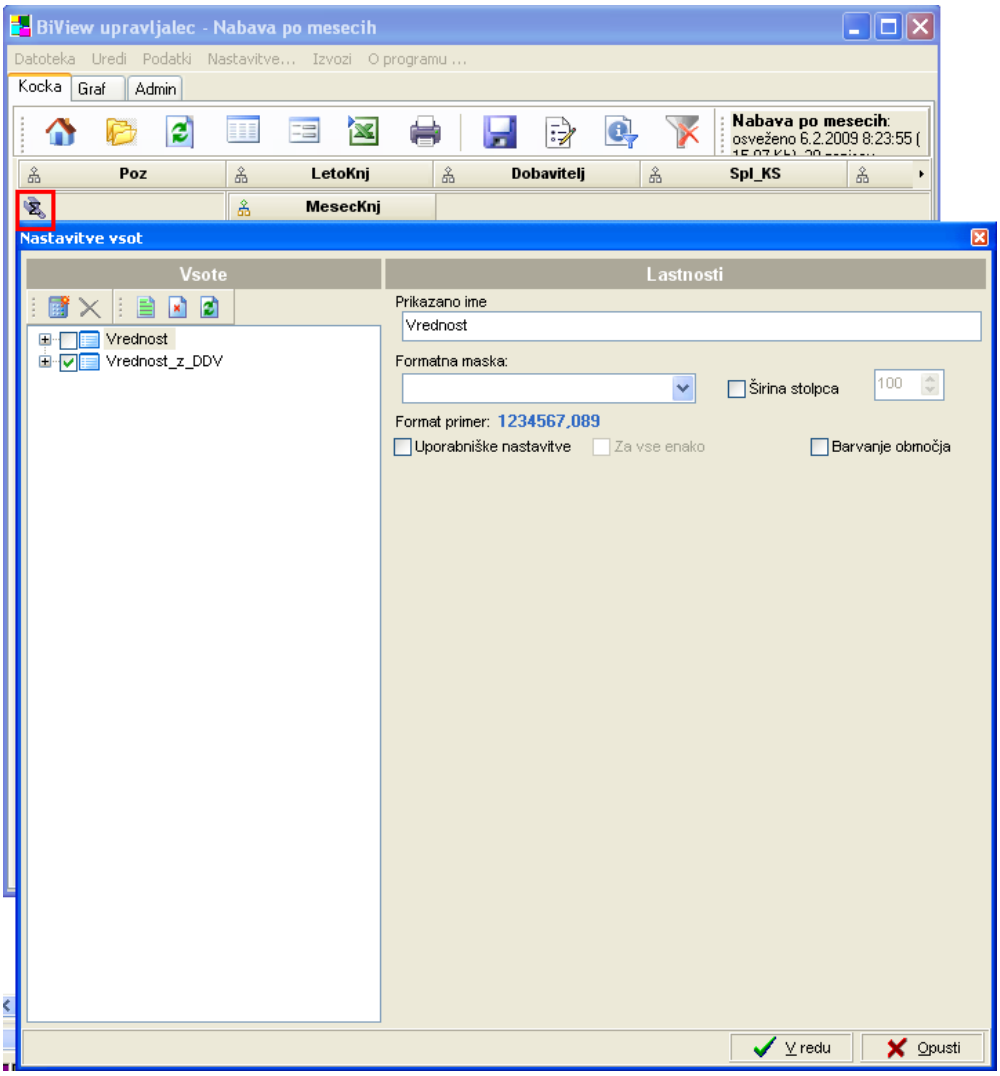


Figure 44: Summary settings

10.1 Summaries

This part of summary settings is used for managing existing numeric data, preparing new calculations and choosing between statistical and mathematical functions.

10.1.1 Add new calculated summary

By clicking this button you can create new calculated summary. First, define new summary name and then edit the formula of calculated summary. In the formula editor you have available metric data, which come directly from the database. You can combine them with different numbers for multiplying, dividing, subtracting, (dividing by 3; multiplying by 1.2,).

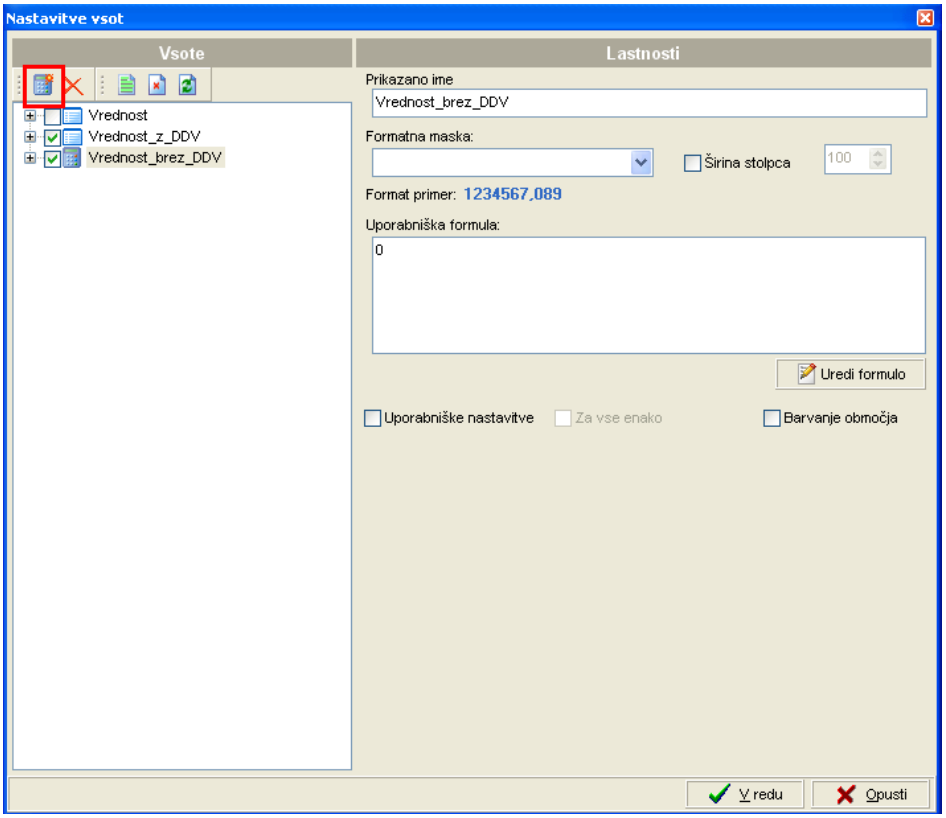


Figure 45: New calculated summary

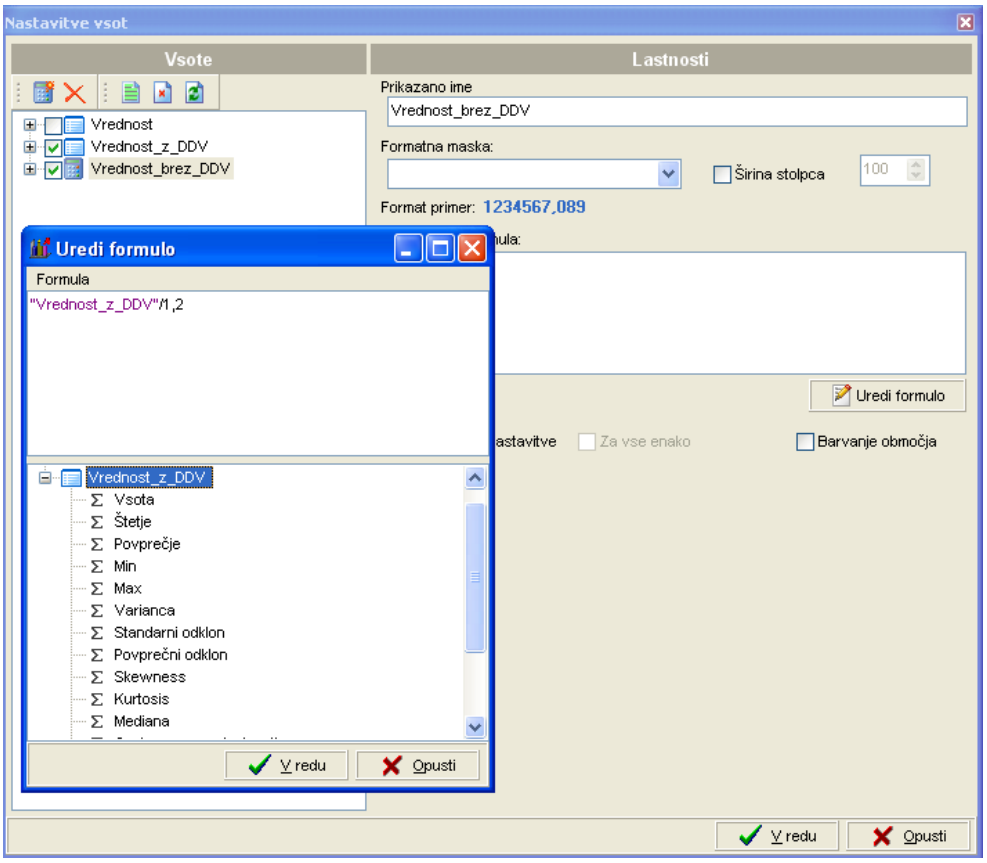


Figure 46: Formula edit

10.1.1.1 Formulas

A formula consists of variables/constants and/or incorporated functions and operators. Variables are numeric fields which are offered in formula editor (»Quantity«., «Sum«*, »Quantity«., «Count«*), constants are numbers. If a number is decimal, then dot ». « is used).

10.1.1.2 Operators

»*« - star - multiply
» /« - divide
» +« - add
» -» - countdown
» =« - equal sign

Example:

»Quantity«.»Sum «*1.3

Quantity is multiplied by 1,3. Quantity is multiplied * 1,5.

((»Quantity«.»Sum«*1.3)/100)-(»Quantity«.»Count«*)/205.45

10.1.1.3 Incorporated functions

- SIN(X) – calculates sinus(x)
- COS(X) – calculates cosines(x)
- EXP(X) - calculates exponential function
- LOG(X, base) – $\mathcal{J}_{Baza}(X)$

- ROUND(X [, base]) – rounds number «X« to the closest number divided with the number »base«. If the Base is not defined, then it rounds to the highest integer.

ROUND(24, 10) returns 20.
ROUND(24.634) returns 25.

- POWER(X, base) – calculates number X on potency Base

$$Rezultat = X^{Baza}$$

- TRUNC(X [, Base]) – cuts the number to integer and divides it to base. If there is no base, then it only cuts of the number.

TRUNC(27, 10) returns 20.
TRUNC(27.645) returns 27.

10.1.1.4 Conditional IF clause

Conditional IF clause has two forms: simple and complex. The conditions can be nested and resolved from inner to outer. The conditions are separated with brackets.

First form »IF, THEN«

IF(condition, expression) – if the condition is true, then the expression is implemented.

Example:

IF((»Quantity<«.«Sum«*1.3)>200.10, 0)

If the product of »Quantity« and »1,3« is higher than 200,1 then write value zero.

Second form »IF, THEN, ELSE«

IF(condition, expression for condition, expression for opposite condition) – if the condition is true, then the expression for condition is implemented, otherwise the expression for opposite condition is realised.

Comparative operators:
'<' - less
'>' - higher
'=' - equal
'<=' – less or equal
'>=' – higher or equal
'<>' – not equal

The example of formula which divides average per month depending of number of days in the month (longer form of IF clause is used)

```
"Days"."Sum" / "Int"."Count" / IF ("Month"."Max" = 01, 31,IF ("Month"."Max" = 02, 28,
IF ("Month"."Max" = 03, 31,IF ("Month"."Max" = 04, 30,IF ("Month"."Max" = 05, 31,
IF ("Month"."Max" = 06, 30,IF ("Month"."Max" = 07, 31,IF ("Month"."Max" = 08, 31,
IF ("Month"."Max" = 09, 30,IF ("Month"."Max" = 10, 31,IF ("Month"."Max" = 11, 30,
IF ("Month"."Max" = 12,31))))))))))) * 100
```

You can change features to new calculated value by defining name, designing format mask for numbers, or defining other visual settings. For details, read Chapter 10.3 .

10.1.2 Remove the calculated sum

Removes selected sums. It is possible to remove only calculated sums, not basic data which derive from the database.

10.1.3 Select all

It selects all sums.

10.1.4 Select none

It selects no sums.

10.1.5 Inverse all

The current choice of sums is inversed.

10.1.6 Moving sub functions

It is possible to change default order of sub functions. If you want to change the order of sub functions back to default, choose one of the functions and click the »Reset order« button.

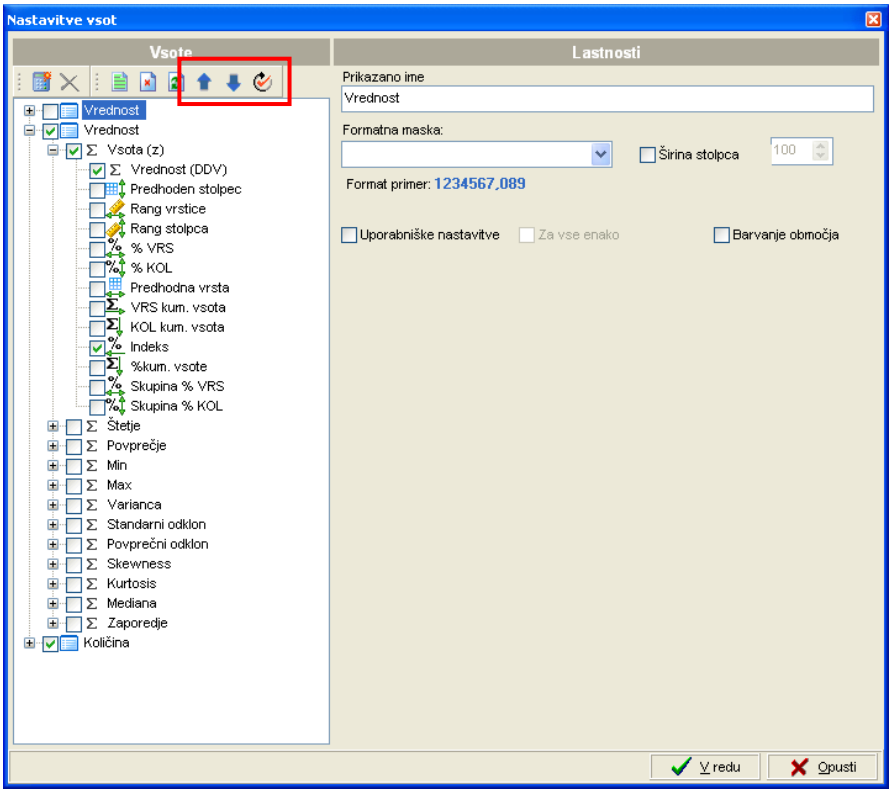


Figure 47: Sub-functions moving

10.2 Mathematical and statistical functions

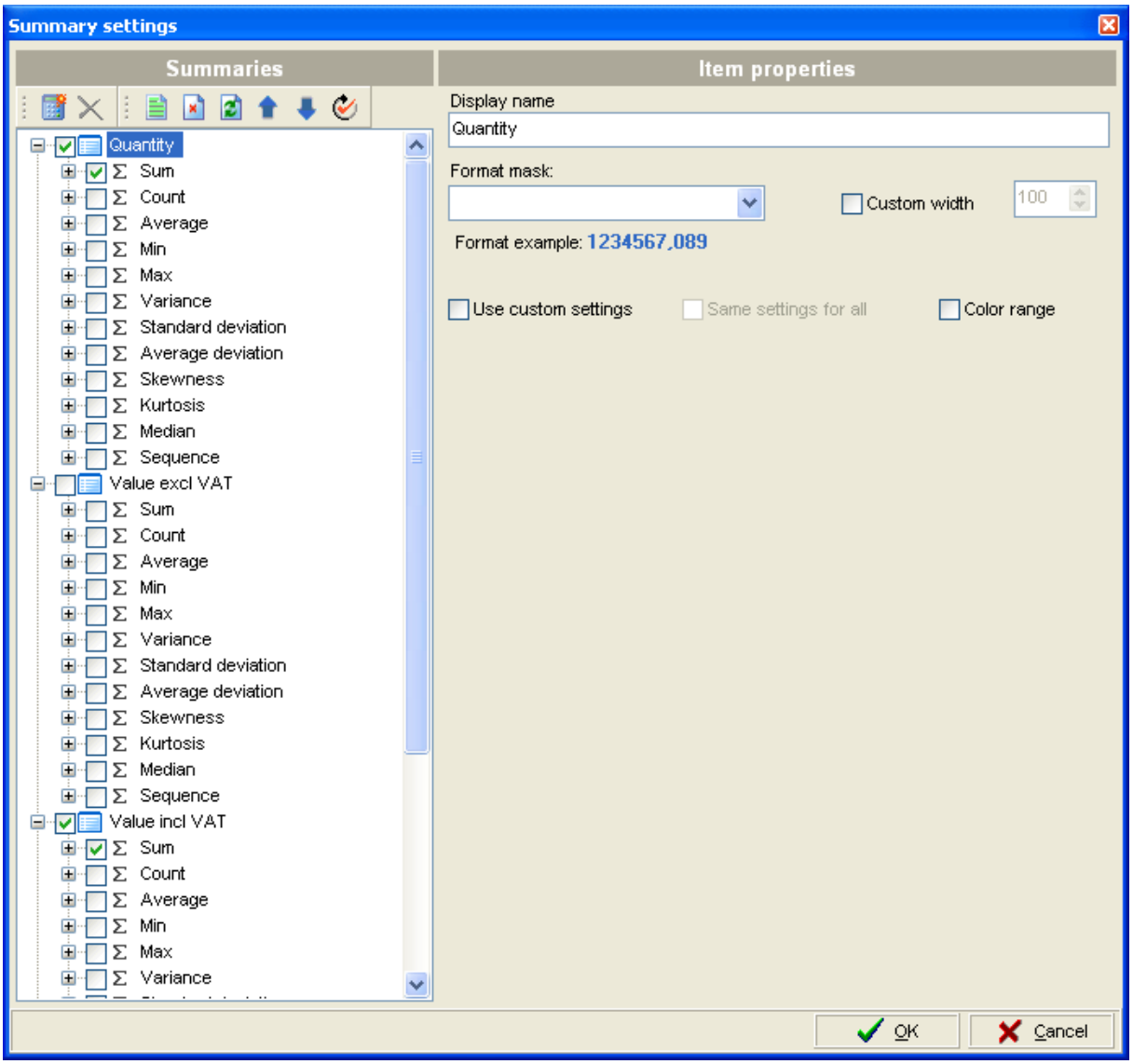


Figure 48: Functions

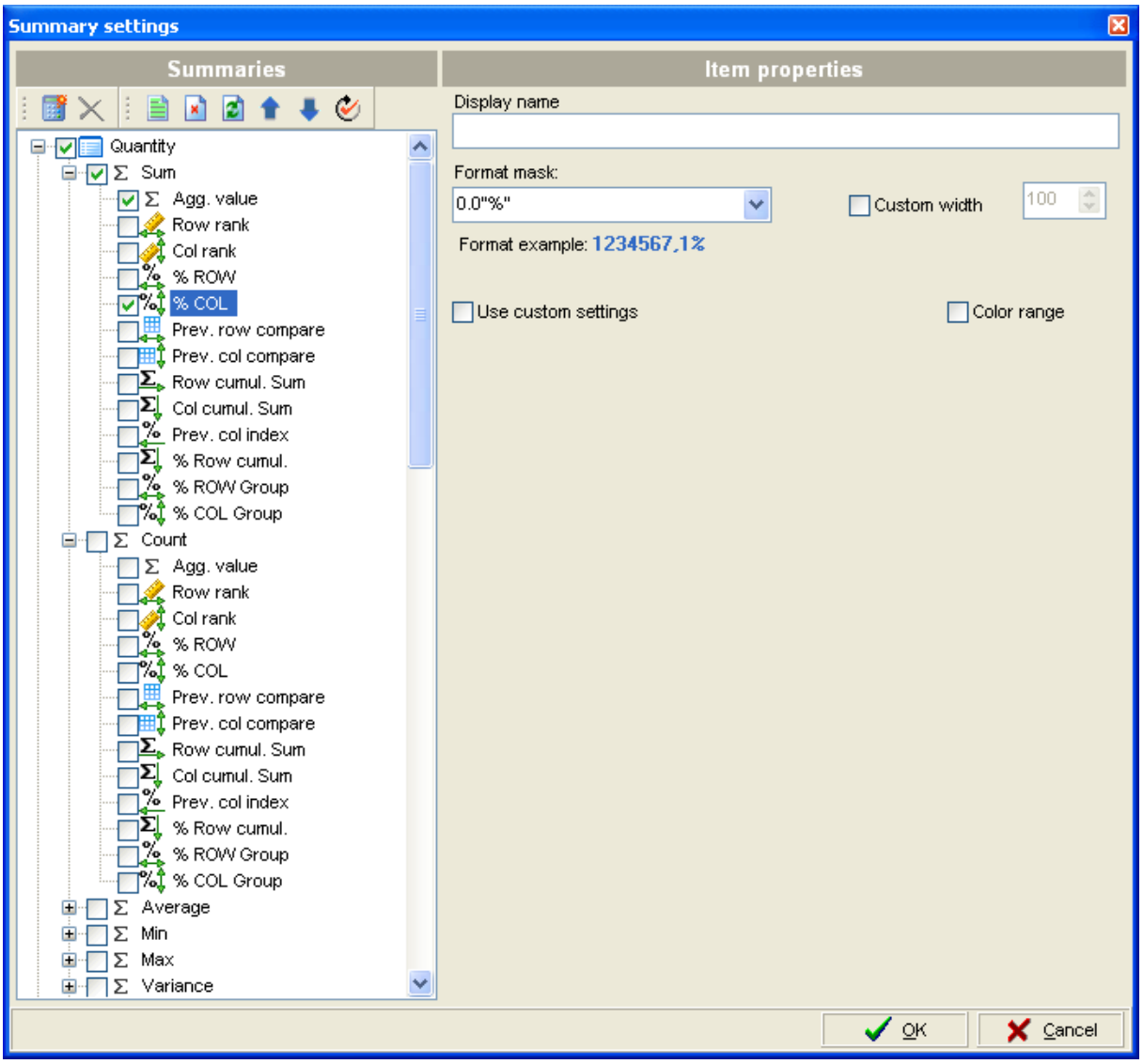


Figure 49: Sub-functions

BIView includes a number of mathematical and statistical functions for every value category. Two levels of functions exist. On the first level you choose between functions: sum, counting, average, min, max, variance, standard deviation, skewness, kurtosis, or median. In this level the sum is the most frequently used.

On the next level you can choose the form of data from the previous level – choose sub functions. You decide whether you analyse data as number, index, cumulative… Here you can choose between different sub functions.

10.2.1 Functions

10.2.1.1 Sum

Individual values of dimension members are expressed absolutely and summarized.

10.2.1.2 Count

Counts how many times one specific member appears in the database.

10.2.1.3 Average
It shows the average value of dimension members.

10.2.1.4 Min
It shows minimum value of single dimension member.

10.2.1.5 Max
It shows maximum value of single dimension member.

10.2.1.6 Variance
The variance of a random variable is a measure of its statistical dispersion, indicating how far from the expected value its values typically are. The variance is the average of the square differences from the mean.

10.2.1.7 Standard deviation
Standard deviation is a measure of the dispersion of a set of data from its mean. The more spread apart the data, the higher the deviation. Standard deviation is calculated as square root of variance.

10.2.1.8 Average deviation
The average deviation or the average absolute deviation is a measure of dispersion. It is the average of absolute deviations of the individual values from the median or from the mean.

10.2.1.9 Skewness
Skewness measures the lack of symmetry of a probability distribution. A curve is said to be skewed to the right (or positively skewed) if it tails off toward the high end of the scale (right tail longer than the left). A curve is skewed to the left (or negatively skewed) if it tails off toward the low end of the scale. Skewness of the distributions whose density is symmetrical around the mean is zero. The reverse is not true - there are asymmetrical distributions with zero skewness.
The skewness of a distribution is equal to its 3rd central moment divided by the 3rd power of the standard deviation.
Skewness characterizes the shape of a distribution - that is, its value does not depend on an arbitrary change of the scale and location of the distribution

10.2.1.10 Kurtosis
Kurtosis measures the "heaviness of the tails" of a distribution (in compared to a normal distribution). Kurtosis is positive if the tails are "heavier" then for a normal distribution and negative if the tails are "lighter" than for a normal distribution. The normal distribution has kurtosis zero.
Kurtosis characterizes the shape of a distribution - that is, its value does not depend on an arbitrary change of the scale and location of the distribution. The kurtosis of a distribution or sample is equal to the 4th central moment divided by the 4th power of the standard deviation, minus 3.

To calculate the kurtosis of a sample:
i) Subtract the mean from each value to get a set of deviations from the mean;
ii) Divide each deviation by the standard deviation of all the deviations;
iii) Average the 4th power of the deviations and subtract 3 from the result.

10.2.1.11 Median

Median is described as the numeric value separating the higher half of a sample, a population, or a probability distribution, from the lower half.

10.2.1.12 Sequence

Sequence is an ordered list of objects (or events) and enables information about number of dimension members. It accounts dimension filters.

10.2.2 Sub-functions

After you select one of the functions, you can also select between the following sub-functions: agg. value, row rank, column rank, row value, row percentage, column percentage, comparison with previous row, comparison with previous column, row cumulative summary, column cumulative summary, previous column index percentage of cumulative summary, percentage of row group or percentage of row column.

10.2.2.1 Agg. value

It presents absolute value which could be positive or negative.

10.2.2.2 Row rank

Shows order of dimension members according to their value by rows. If two dimension members have the same value, they have the same rank.

10.2.2.3 Column rank

Shows order of dimension members according to their value by column. If two dimension members have the same value, they have the same rank.

10.2.2.4 % ROW

Expresses how large/small one dimension member's value is relative to summary value (summary of all dimension members values), by rows.

10.2.2.5 % COL

Expresses how large/small one dimension member's value is relative to summary value (summary of all dimension members values), by column.

10.2.2.6 Previous row compare

Shows the difference comparing to the previous row.

10.2.2.7 Previous column compare

Shows the difference comparing to the previous column.

10.2.2.8 Row cumulative sum

Shows cumulative sum by rows.

10.2.2.9 Column cumulative sum

Shows cumulative sum by column.

10.2.2.10 Previous column index

Index is a number or ratio (a value on a scale of measurement) derived from a series of observed facts; a comparison is made by columns (example: comparison of quantity in this and last year).

10.2.2.11 % row cumulative

Shows the percentage of row cumulative value.

10.2.2.12 % Row group

Shows the percentage of particular elements according to the group, by rows.

10.2.2.13 % Column group

Shows the percentage of particular elements according to the group, by column.

10.3 Item properties

10.3.1 Display name

Name of variable is displayed. You can change it.

Example:

Name of variable (from database): Value

Display name (changed): Value (in EUR)

10.3.2 Format mask

The decimal separator has to be set on ».« (decimal point), even though its actual display depends on Windows language settings (decimal point or decimal comma).

10.3.2.1 Characters in format mask

- The symbol for the thousands separator has to be always set on »,« (comma) – if there are two commas the number display will be in tousands. Iif there are three commas, the number display will be in millions.
- The character for the numeric position in the format mask is »#« when you don't want leading zeros, or »0« when you want leading zeros.
- In addition to defined characters for designing numbers, you can add any other symbol which will be written beside the defined numbers.

The format mask could have three parts separated by semicolon:

First_part;second_part;third_part

- First part – positive numbers' design (if the second and the third part are not present it will be valid for all numbers)
- Second part – negative numbers' design
- Third part – null values' design

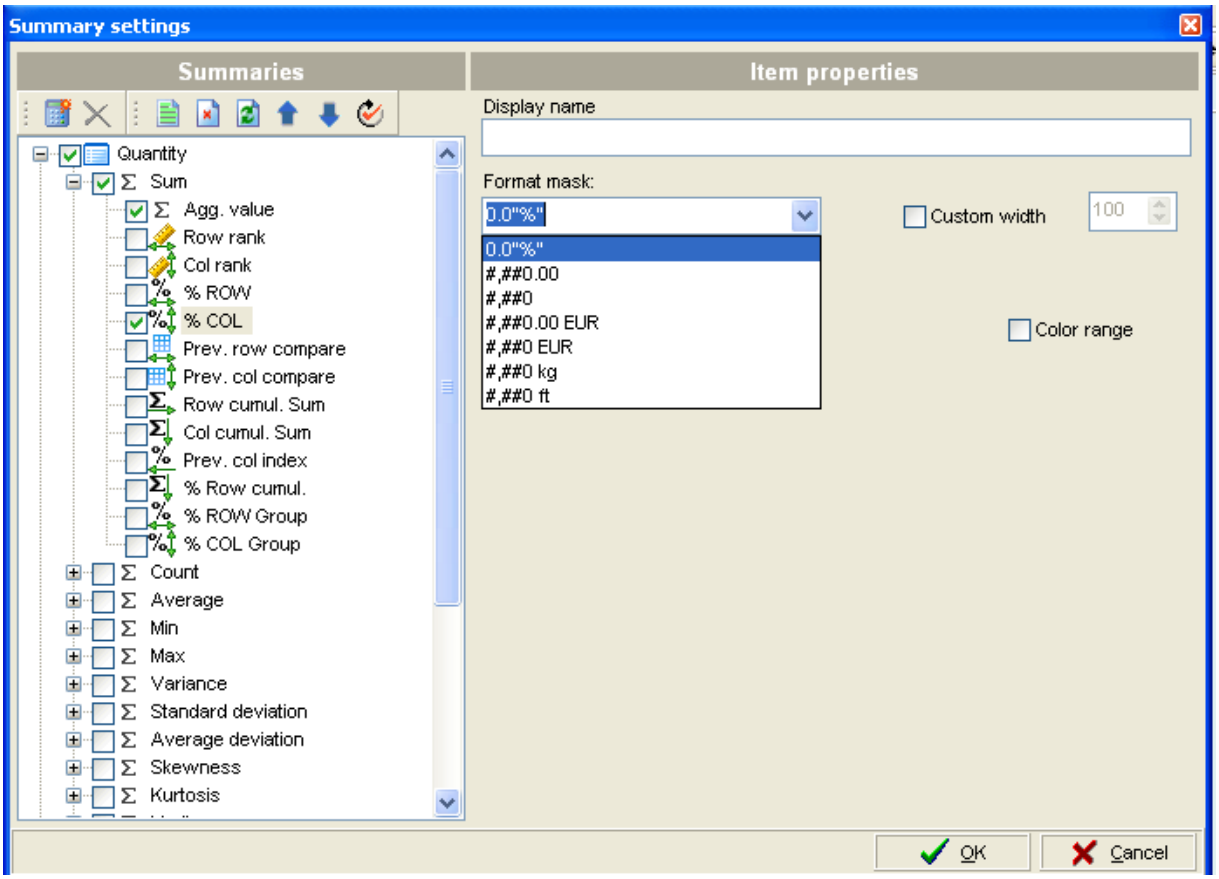


Figure 50: Format mask

Example:

The number is: 1234,5670 (one thousand two hundred thirty four point 567 thousandths)

Format mask	Display
#####	1235
00000	01235
0	1235
#,##0	1.235
,0	1.235
0.####	1234,567
0.0000	1234,5670
#,,##0.00	1,23 (divided to thousand)
"Value = "	Value = 1234,6
0.0	-1234,6
0.0 "CR";0.0 "DB"	1234,6 CR

For negative number -1234,5670

Format mask	Display
0.0 "CR";0.0 "DB"	1234,6 DB
###.##	-1234,56

For zero number:

Format mask	Display
0.0	0,0
0.0;-0.0;"No data"	No data

10.3.3 Custom width

This function is used to define exact width of selected column. The function Align columns in the View menu is subordinated to Custom width.

10.3.4 Same settings for all

This function enables to define the same settings for all data columns.

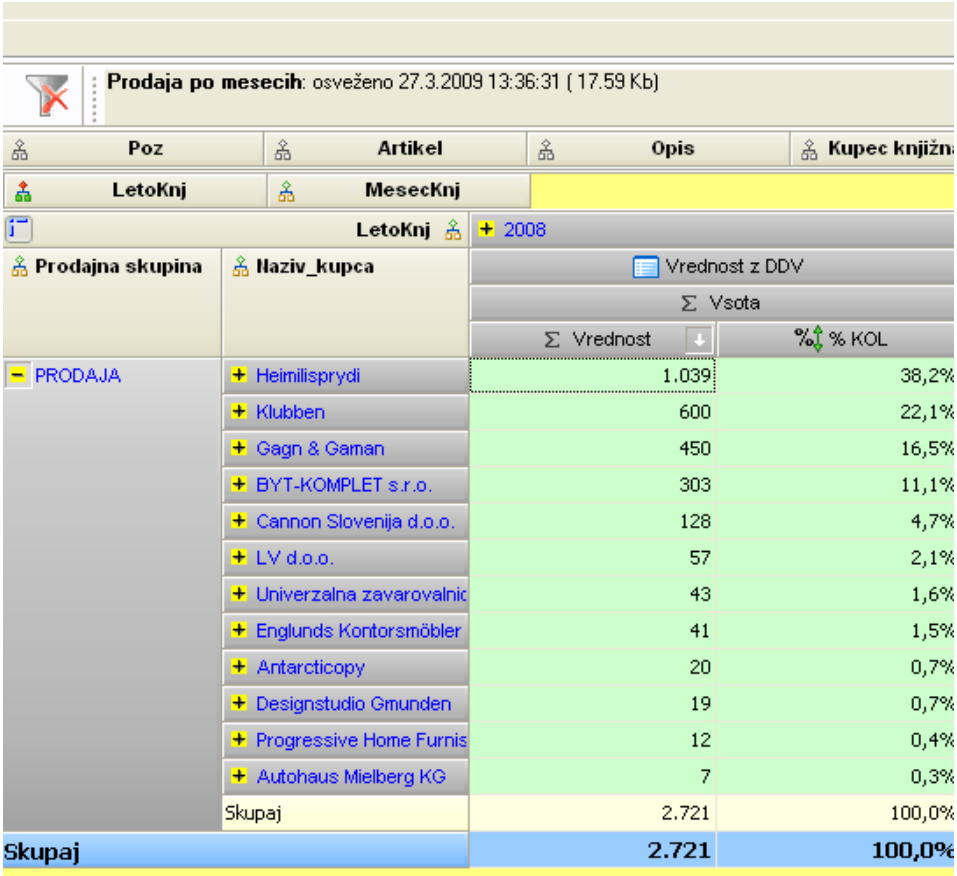


Figure 51: Function »Same settings for all«

10.3.5 Use custom settings

Use custom settings function opens the menu for data settings. Because you can define data settings for selected data column, you should be on sub-function level.

10.3.6 Colour range

By choosing this function the menu for defining colour ranges is open. You can define features for so called »traffic lights«. It enables to colour selected data regarding defined characteristics (Example: the highest value is green, the lowest value is red).

Define type, colour, and value for minimum, maximum and the middle. They could be defined as the percentage or value. Also choose the colour for minimum, maximum and the middle.

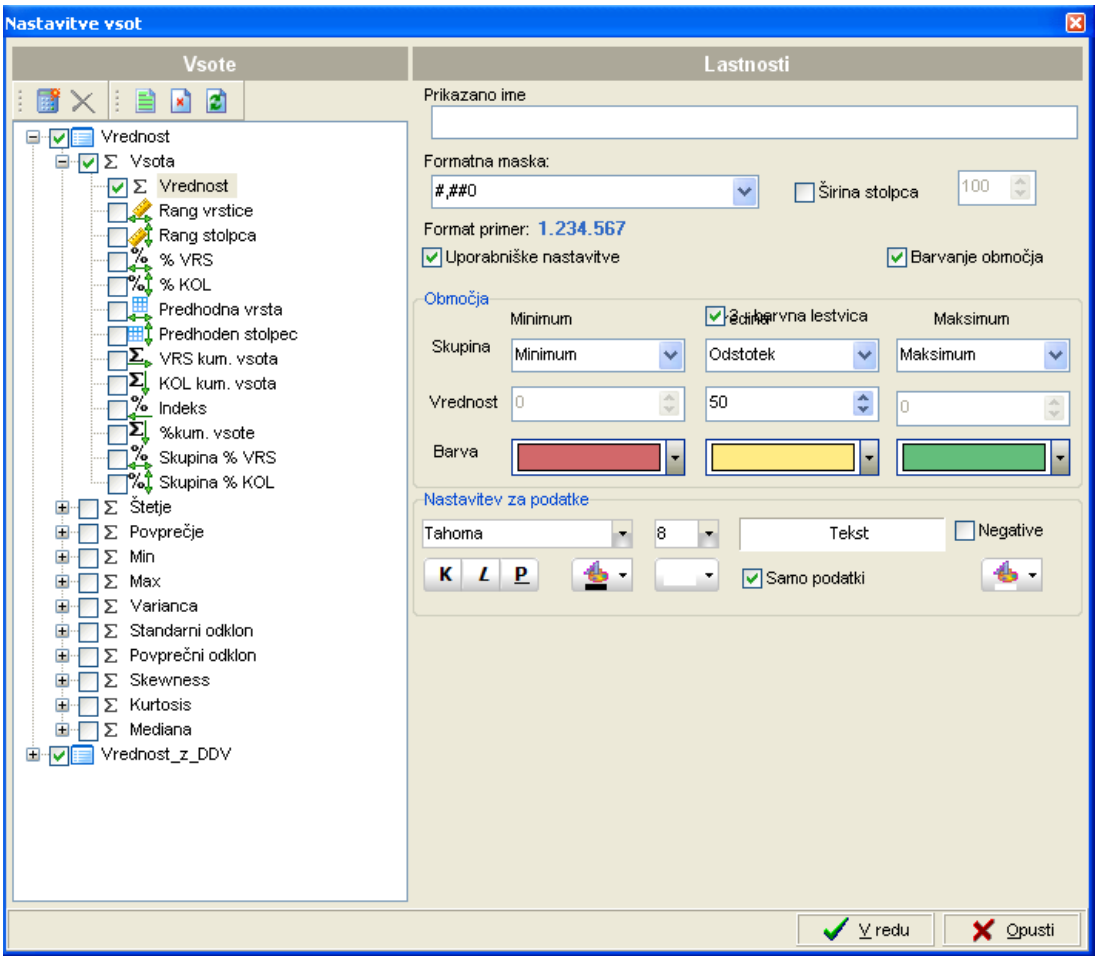


Figure 52: Custom settings and colour range menus

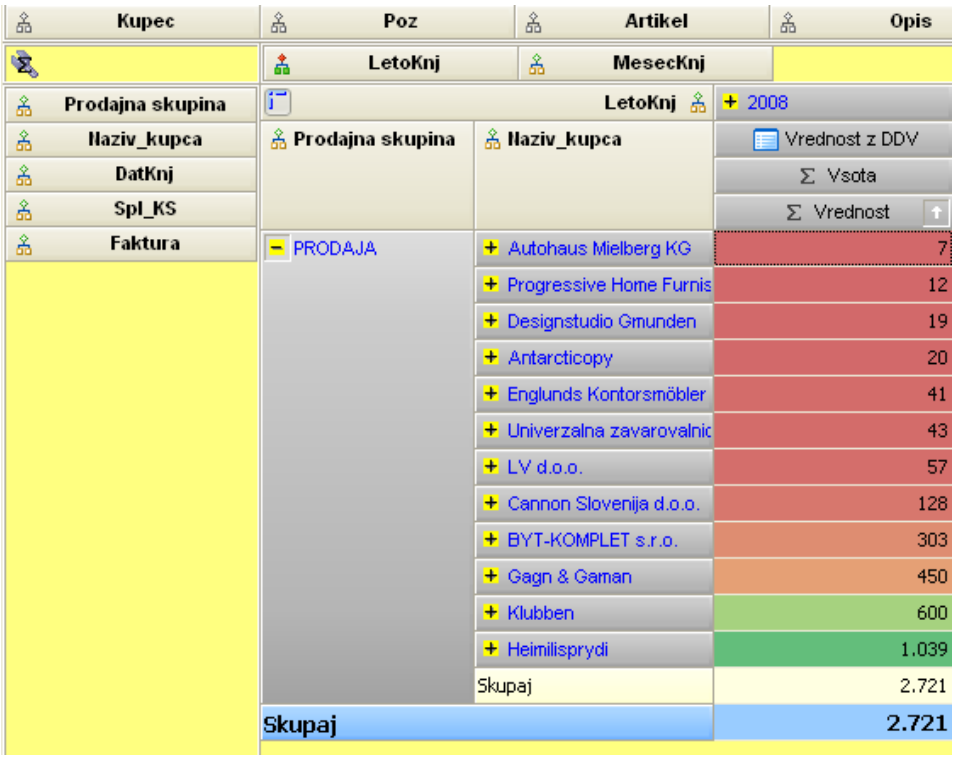


Figure 53: Colour range settings in the table

11 Functions on mouse click

Some BIView functions are available at the right mouse button click. It is important where the mouse is positioned.

It makes sense to use right mouse button on

- Dimension
- Dimension members
- Data
- Function level in the table
- Sub-function level in the table

11.1 Right mouse button click on Dimension

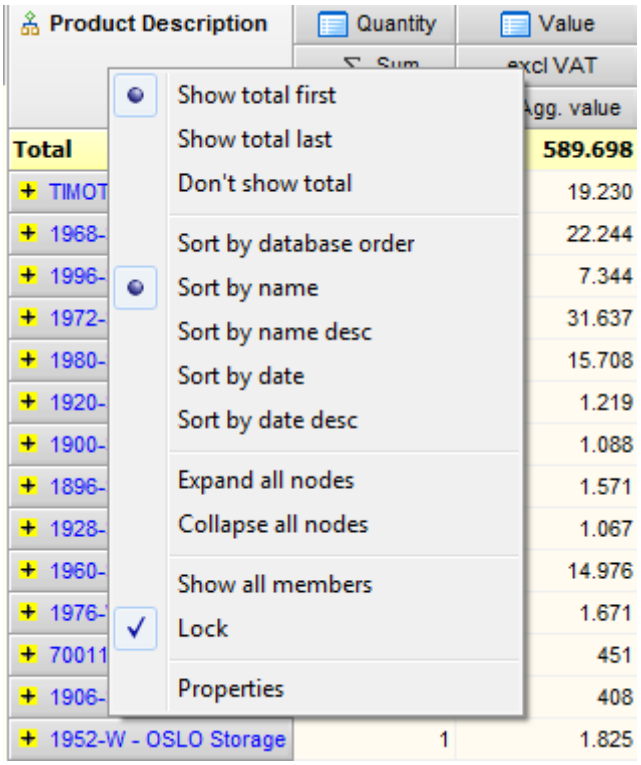


Figure 54: Right mouse button click on dimension

- Show total first – data summary is shown at the beginning of the selected dimension
- Show total last – data summary is shown at the end of the selected dimension
- Don't show total – data summary is not shown
- Sort by database order – as data were entered into database
- Sort by name – by ascending order, from a to z
- Sort by name desc – by descending order, from z to a
- Sort by date – by ascending order
- Sort by date desc – by descending order
- Expand all nodes – expand all dimension members of selected dimension
- Collapse all nodes – collapse all dimension members of selected dimension
- Show all members – delete filters and show all members
- Lock – lock or unlock the custom width defined in Dimension editor
- Properties – opens the window for specifying dimension features (look Chapter 9.1.2 Properties)

11.2 Right mouse button click on dimension members

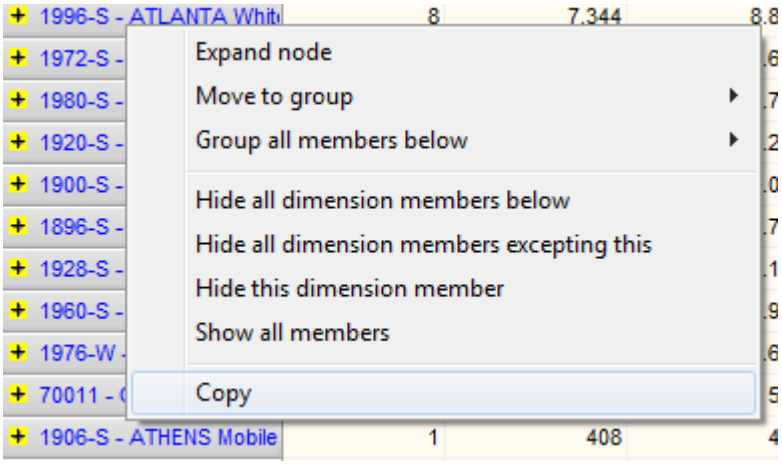


Figure 55: Right mouse button click on dimension members

- Expand node – expands selected dimension member
- Move to group – moves selected dimension member to particular group
- Group all members below – groups all members below the selected member to particular group
- Hide all dimension members below – hides all dimension members below the selected member
- Hide all dimension members except this – hides all dimension members except the selected one
- Hide this dimension member – hides selected dimension member
- Show all members – in case of any filters on dimension members this function enables to show all members (eliminates filters)
- Copy – copy a dimension member's name to clipboard

11.3 Right mouse button click on data

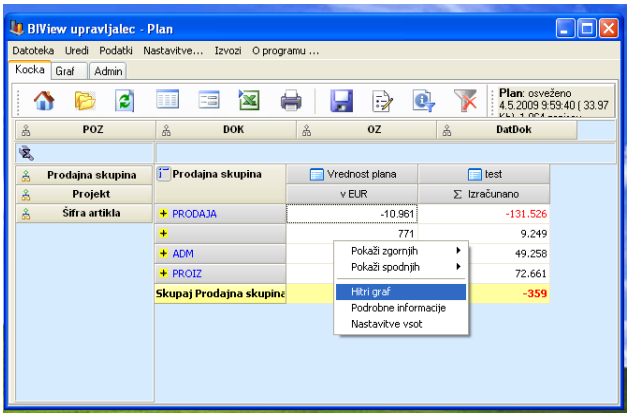


Figure 56: Right mouse button click on data

Show top:

- 1,3,5,10 – shows 1, 3, 5 or 10 dimension members with the highest values
- 5%, 10%, 25%, 50%, 75% – shows only those dimension members which percentage in total value exceeds upper 5%, 10%…

Example:
Show top 25% - shows members of which single percentage is between 75% in 100% (for example: 77,5%; 82,4%; 97,6%;…)

- Other – you can define conditions for filtering dimension members. You can define absolute values or percentages (in this case include the percent sign). Example: show top 6
  Show top 15%

Show bottom:

- 1,3,5,10 – it shows 1, 3, 5 or 10 dimension members with the lowest values
- 5%, 10%, 25%, 50%, 75% - it shows those dimension members, of which single percentage in total value fall in the bottom 5%, 10%…

Example:
Show bottom 10% - shows members of which single percentage in total value is less than 10% (for example: 5,1%; 8,6%; 3,5%,…)

If there are more dimensions expanded, the filtering of numeric data is performed according to the first dimension left to the data (the closest dimension to the numeric data).

Reset filters – eliminates all filters on numeric data

Quick graph – shows numeric data distribution for the column you click with the mouse. Values from the column are seen on the graph according to the first dimension. You can move the graph to the desktop.

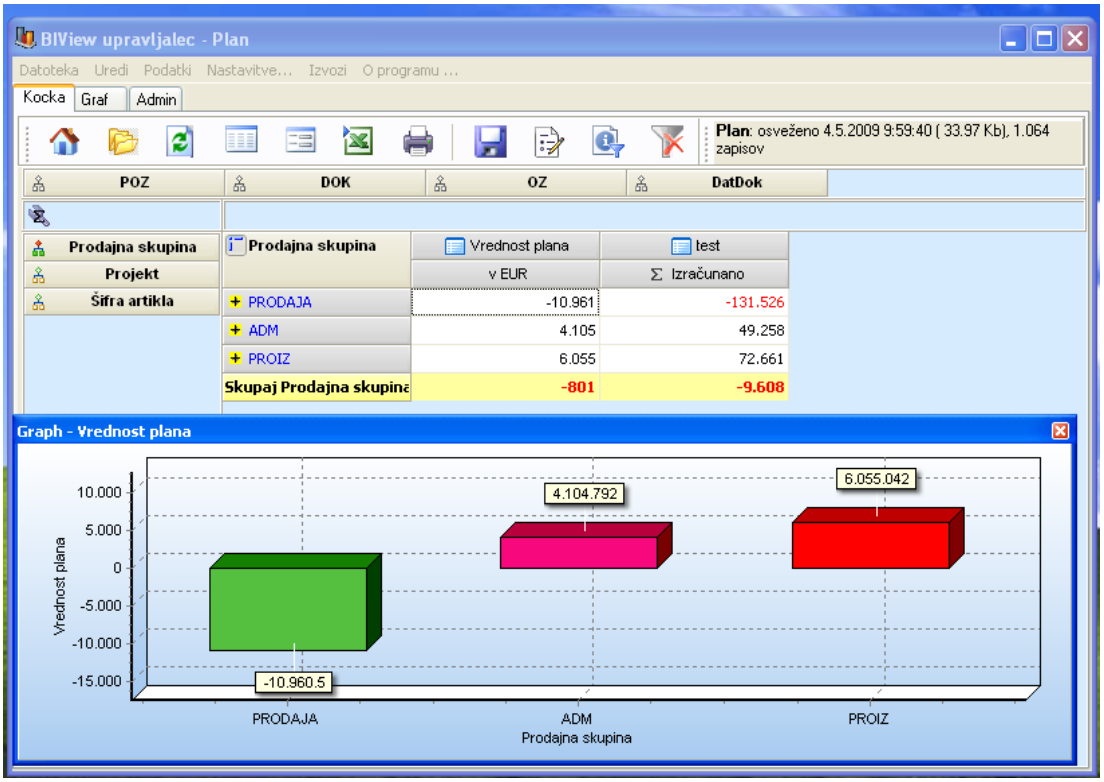


Figure 57: Quick graph

11.4 Right mouse button click on functions

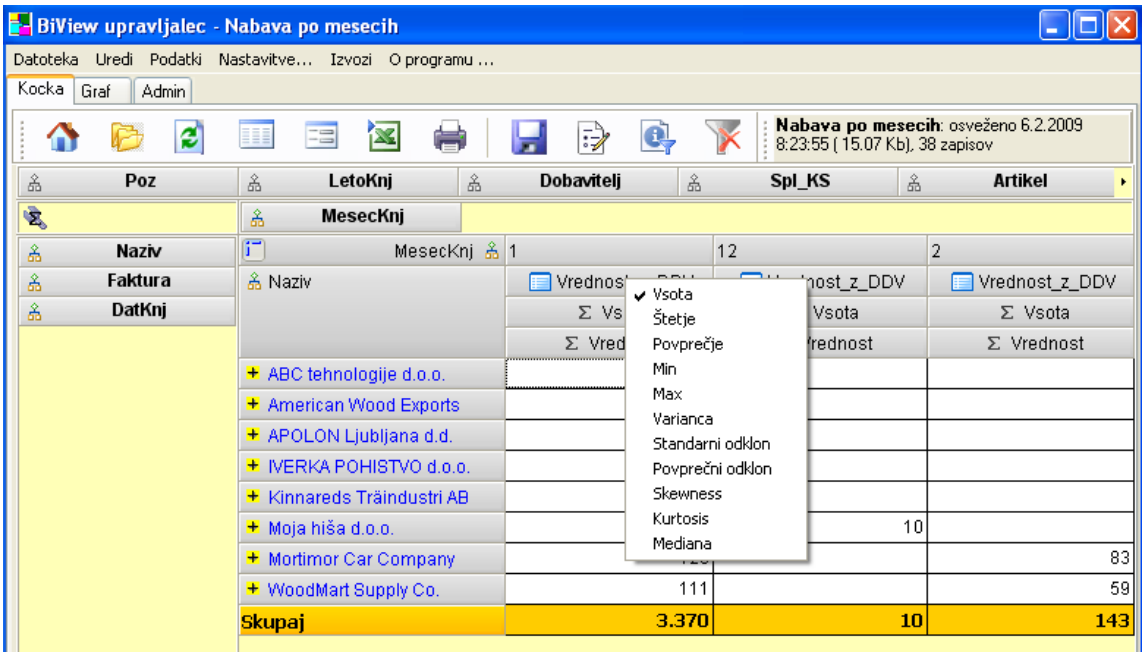


Figure 58: Right mouse button click on functions

Please read chapter 10.2.1 Functions for detailed explanation of specific functions.

11.5 Right mouse button click on sub-functions

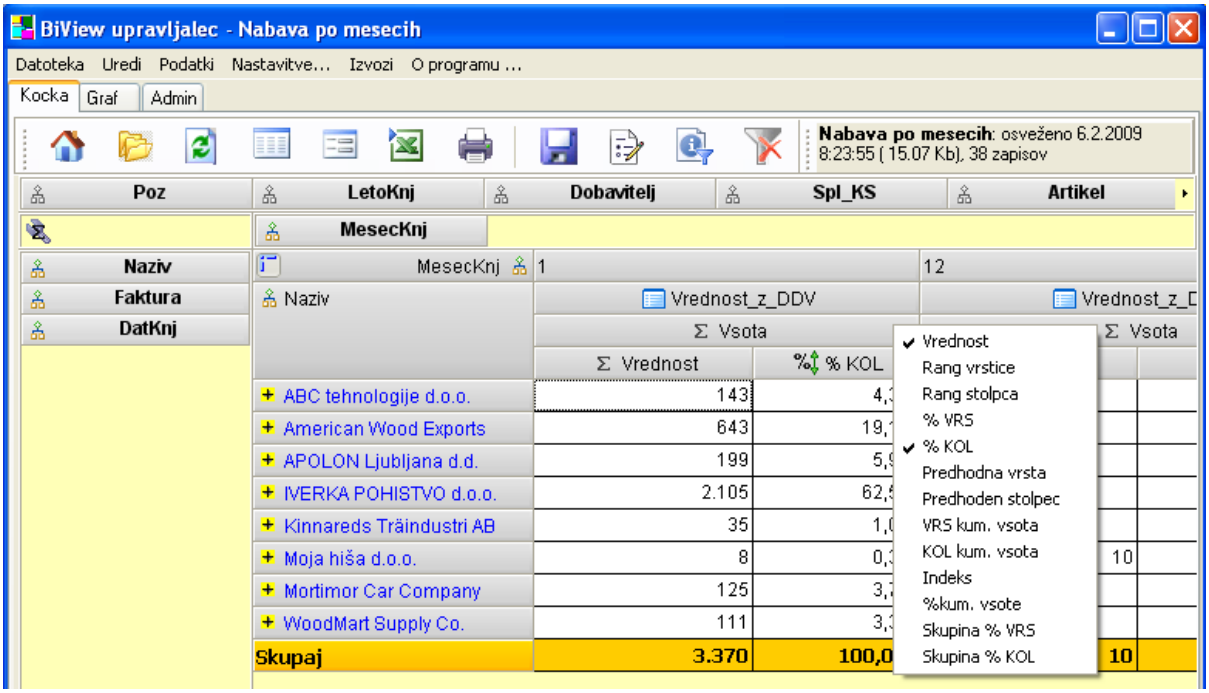


Figure 59: Right mouse button click on sub-functions

For detailed explanation of specific functions, please read the chapter 10.2.2 Sub-functions .

11.6 Right mouse button click on a view list

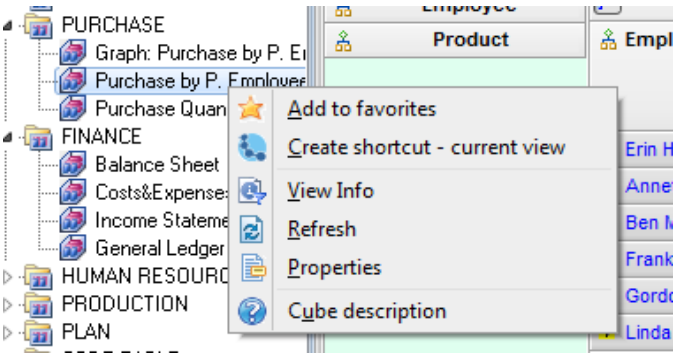


Figure 60: Right mouse button click on a view list

- Add to favorites: save the current view in the list of your favorites views. The same view can be added to favorites list multiple times
- Create shortcut: current view: save current view as a shortcut on a desktop

- View Info: it opens a window with basic information about current view

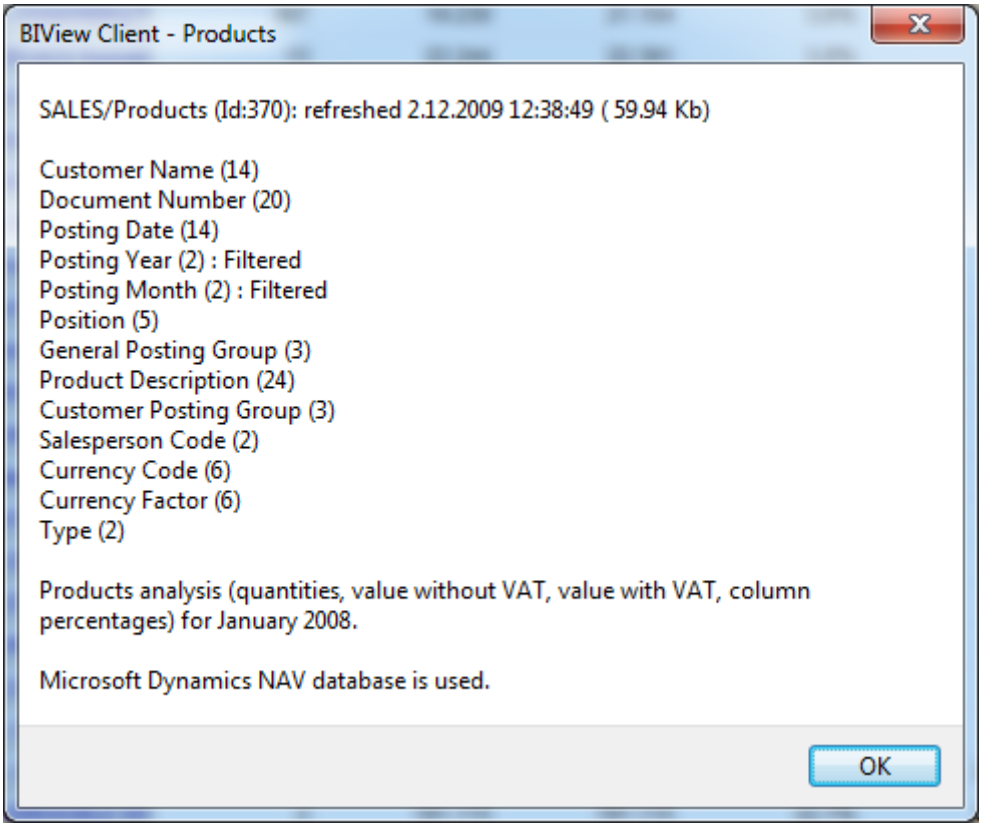


Figure 61: View Info

- Refresh: refresh current view; in BIView Xplorer it turns a saved view design

- Properties: it opens a Visual settings for current view

- Cube description: Shows a window with the description of the view. If there is no file with the description of the view, it displays the description that was set in BIView. If there is no description set in BIView as well, then this function does not displaying anything.